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COMITE  
CONSULTATIF INTERNATIONAL  
TELEPHONIQUE  
(C.C.I.F.)

*Xth PLENARY MEETING*  
*Budapest, 3rd—10th September, 1934*

VOLUME V  
Organisation, Operating and Tariffs

English Edition  
Issued by the International Standard Electric Corporation, London, 1936

# VOLUME V.

## TABLE OF CONTENTS.

### PART 1. REGULATIONS AND RECOMMENDATIONS CONCERNING THE ORGANISATION OF THE COMITE CONSULTATIF INTERNATIONAL TELEPHONIQUE

	English Page.	French Page. Vol. V.
<b>A. Extracts from the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932</b> ... ..	541	5
Article 37 of the Telephone Regulations ... ..	541	5
Internal Regulations of the International Telephone Consultative Committee (C.C.I.F.) (Appendix to Article 37 of the Telephone Regulations) ... ..	542	7
<b>B. Recommendations of the International Telephone Consultative Committee</b> ... ..	544	10
Organisation and Working of the International Telephone Consultative Committee (C.C.I.F.) ... ..	544	10
Representation on the C.C.I.F. of Operating Companies in Countries where the State Telephone Administration is a member of the C.C.I.F. ... ..	546	13
Membership of the C.C.I.F. of Operating Companies in Countries where there is no State Telephone Administration ... ..	546	13
Membership of the C.C.I.F. of Colonies, Protectorates and Territories governed by Sovereignty or Mandate... ..	546	14
Technical collaboration between the C.C.I.F. and Technical Organisations dealing with Questions likely to have a bearing on International Telephony ... ..	547	14
Collaboration between the C.C.I.F. and the Bureau of the International Telecommunication Union ... ..	547	15
Liaison Committee between the various International Organisations engaged on Questions relating to Electricity ... ..	547	15
Secretariat Staff Rules of the C.C.I.F. ... ..	548	16
Staff Rules of the European Master Reference System for Telephone Transmission Laboratory... ..	549	18

### PART 2. RECOMMENDATIONS CONCERNING QUESTIONS OF OPERATING AND TARIFFS

<b>A. General. Recommendations Nos. 1-13</b> ... ..	551-568	21-55
<b>B. Various Classes of Calls and Facilities Offered to the Public, Recommendations Nos. 14-27</b> ... ..	572-586	56-80
<b>C. Methods of Operating. Recommendations Nos. 28-42</b> ... ..	587-597	80-97
<b>D. Tariffs and Method of Applying Tariffs. Recommendations Nos. 43-59</b> ... ..	598-614	97-123
<b>E. Traffic Statistics. Recommendations Nos. 60-64</b> ... ..	615-623	124-137

### LIST OF RECOMMENDATIONS ESSENTIAL FOR OPERATING INTERNATIONAL TELEPHONE CIRCUITS.

<b>Recommendation No. 2.</b> Decentralisation of International Traffic ... ..	555	29
<b>Recommendation No. 3.</b> Maximum Waiting Time for ordinary International Calls ... ..	555	30
<b>Recommendation No. 6.</b> Extension of the International Telephone Service ... ..	561	39
<b>Recommendation No. 10.</b> Emergency Lines ... ..	566	45
<b>Recommendation No. 11.</b> Emergency Land Line extending a radio telephone circuit ... ..	567	49
<b>Recommendation No. 14.</b> Subscription Calls ... ..	572	56
<b>Recommendation No. 16.</b> Calls by Subscription for Periods of Less than One Month ... ..	574	61
<b>Recommendation No. 17.</b> Occasional calls at Fixed Times ... ..	575	61
<b>Recommendation No. 18.</b> Calls with Avis d'Appel or Préavis ... ..	575	63
<b>Recommendation No. 19.</b> Bourse Calls ... ..	580	70
<b>Recommendation No. 20.</b> Calls paid by the Person Called ... ..	581	72
<b>Recommendation No. 21.</b> Requests for Information ... ..	582	73
<b>Recommendation No. 22.</b> Leasing International Lines, not comprising Submarine Sections, for Private Purposes ... ..	583	74
<b>Recommendation No. 23.</b> Conference Calls ... ..	584	76
<b>Recommendation No. 24.</b> Calls demanded by Aeroplane Pilots in Cases of Forced Landings ... ..	584	77
<b>Recommendation No. 25.</b> Modification to Demands for Calls at the request of the Caller ... ..	585	78
<b>Recommendation No. 26.</b> Transmission of Demands for Calls during Heavy Traffic... ..	585	79
<b>Recommendation No. 27.</b> Priority of International Calls over Internal Calls ... ..	586	80
<b>Recommendation No. 28.</b> Operating International Circuits ... ..	587	80

	<i>English Page.</i>	<i>French Page. Vol. V.</i>
<i>Recommendation No. 29.</i> Assignment of the Serial Number to the Call ... ..	587	81
<i>Recommendation No. 30.</i> Enunciation of Subscribers' Numbers ... ..	587	81
<i>Recommendation No. 31.</i> General Principles for equalising Waiting Times in both directions ... ..	588	82
<i>Recommendation No. 32.</i> Telegraphic Preparation of Telephone Calls ... ..	588	83
<i>Recommendation No. 33.</i> Maximum duration of Test Calls before the Establishment of Communication between Subscribers ... ..	592	88
<i>Recommendation No. 34.</i> Advice given to the Terminal Exchange at the Calling End that the Called Stations have replied ... ..	592	89
<i>Recommendation No. 35.</i> Calls during which Difficulties in Hearing arise ... ..	592	89
<i>Recommendation No. 36.</i> Operating Rules for International Transit Traffic ... ..	593	91
<i>Recommendation No. 39.</i> Calls without Pr��avis to a Subscriber's Station referred to "Absent Subscribers' Service" ... ..	596	94
<i>Recommendation No. 40.</i> Checking the Number of Minutes of Conversation between Terminal Exchanges of International Lines ... ..	596	95
<i>Recommendation No. 43.</i> International Telephone Charges ... ..	598	97
<i>Recommendation No. 44.</i> Rates for Conference Calls ... ..	600	101
<i>Recommendation No. 45.</i> Rates for Subscription Calls ... ..	600	101
<i>Recommendation No. 47.</i> Rates applicable to Press Calls ... ..	601	102
<i>Recommendation No. 48.</i> Calls made to a Wrong Number ... ..	601	103
<i>Recommendation No. 50.</i> Radio-broadcast Transmissions ... ..	603	106
<i>Recommendation No. 51.</i> International Calls using a Radio Telephone Circuit ... ..	610	116
<i>Recommendation No. 52.</i> Picture Transmission between Correspondents over General Service Circuits (conditions relating to acceptance and tariffs) ... ..	610	116
<i>Recommendation No. 53.</i> No reply from the Calling or Called Subscriber... ..	611	119
<i>Recommendation No. 54.</i> Application of Report Charges on Radio Telephone Circuits ... ..	612	120
<i>Recommendation No. 55.</i> Standardisation of the Hours of Light Traffic for the Application of Tariffs ... ..	613	120
<i>Recommendation No. 56.</i> Tolerance and Arrangements for Registering the Duration of Calls ... ..	613	121
<i>Recommendation No. 57.</i> Recording the Chargeable Duration of Calls ... ..	613	121
<i>Recommendation No. 58.</i> Defaulting Subscribers ... ..	614	122
<i>Recommendation No. 59.</i> Publicity Expense ... ..	614	123
<i>Recommendation No. 62.</i> Supervision of International Telephone Traffic ... ..	620	131

#### INDEX OF RECOMMENDATIONS\*

<b>A.</b>	<i>Recommendation No. 1.</i> Definitions concerning Operating in International Telephony ... ..	551	21
	<i>Recommendation No. 2.</i> Decentralisation of International Traffic ... ..	555	29
	<i>Recommendation No. 3.</i> Maximum waiting time for Ordinary International Calls ... ..	555	30
	<i>Recommendation No. 4.</i> Establishment of the Nomenclature of the International Circuits and the Schematic Plan of the Cables ... ..	556	31
	<i>Recommendation No. 5.</i> Establishment of a Plan of European International Circuits specially designed or arranged for Music Transmission ... ..	560	37
	<i>Recommendation No. 6.</i> Extension of the International Telephone Service ... ..	561	39
	<i>Recommendation No. 7.</i> Arrangement between two Countries for International Telephone Service ... ..	562	40
	<i>Recommendation No. 8.</i> Opening of New Services—Publicity Calls ... ..	565	44
	<i>Recommendation No. 9.</i> Method of Indicating to the Exchanges Normal and Auxiliary Routes ... ..	565	45
	<i>Recommendation No. 10.</i> Emergency Lines ... ..	566	45
	<i>Recommendation No. 11.</i> Emergency Land Lines extending a Radio Telephone Link ... ..	567	49
	<i>Recommendation No. 12.</i> Telephone Directories ... ..	568	49
	<i>Recommendation No. 13.</i> Publication of Pamphlets giving the International Connections Authorised, the Facilities Offered and the Corresponding Tariffs ... ..	568	51
<b>B.</b>	<i>Recommendation No. 14.</i> Subscription Calls ... ..	572	56
	<i>Recommendation No. 15.</i> Agreement to be concluded between Exchanges and Subscribers for the exchange of Fixed-Time Calls ... ..	572	56
	<i>Recommendation No. 16.</i> Calls by Subscription for Periods of less than One Month ... ..	574	61
	<i>Recommendation No. 17.</i> Occasional Calls at Fixed Time ... ..	575	61
	<i>Recommendation No. 18.</i> Calls with Avis d'appel and Calls with Pr��avis ... ..	575	63
	<i>Recommendation No. 19.</i> Bourse Calls ... ..	580	70

\*Not given in the French text.

		English Page.	French Page. Vol. V.
	<i>Recommendation No. 20.</i> Calls paid by the Person Called ... ..	581	72
	<i>Recommendation No. 21.</i> Requests for Information ... ..	582	73
	<i>Recommendation No. 22.</i> Leasing International Lines, not comprising Submarine Sections, for Private Purposes ... ..	583	74
	<i>Recommendation No. 23.</i> Conference Calls ... ..	584	76
	<i>Recommendation No. 24.</i> Calls demanded by Aeroplane Pilots in Cases of Forced Landings ...	584	77
	<i>Recommendation No. 25.</i> Modifications to Demands for Calls at the Request of the Caller...	585	78
	<i>Recommendation No. 26.</i> Transmission of Demands for Calls during Heavy Traffic ...	585	79
	<i>Recommendation No. 27.</i> Priority of International Calls over Internal Calls ... ..	586	80
C.	<i>Recommendation No. 28.</i> Operating International Circuits ... ..	587	80
	<i>Recommendation No. 29.</i> Assignment of the Serial Number to the Call ... ..	587	81
	<i>Recommendation No. 30.</i> Enunciation of Subscribers' Numbers ... ..	587	81
	<i>Recommendation No. 31.</i> General Principles for equalising Waiting Times in both directions ...	588	82
	<i>Recommendation No. 32.</i> Telegraphic Preparation of Telephone Calls ... ..	588	83
	<i>Recommendation No. 33.</i> Maximum Duration of Test Calls before the Establishment of Com- munication between Subscribers ... ..	592	88
	<i>Recommendation No. 34.</i> Advice given to the Terminal Exchange at the Calling end that the Called Stations have replied ... ..	592	89
	<i>Recommendation No. 35.</i> Calls during which Difficulties in Hearing arise ... ..	592	89
	<i>Recommendation No. 36.</i> Operating Rules for International Transit Traffic ... ..	593	91
	<i>Recommendation No. 37.</i> Conditions which should be fulfilled concerning the Operation of Inter- communication Systems between International Four-wire and Two-wire Circuits ... ..	595	93
	<i>Recommendation No. 38.</i> System of Spelling and Phrases to be used for Operating International Circuits ... ..	595	93
	<i>Recommendation No. 39.</i> Calls without Préavis to a Subscriber's Station, the number of which has been changed or which has been temporarily referred to " Absent Subscriber's Service " ...	596	94
	<i>Recommendation No. 40.</i> Checking the Number of Minutes of Conversation between Terminal Exchanges on International Lines ... ..	596	95
	<i>Recommendation No. 41.</i> Instruction of the Personnel of Telephone Exchanges ... ..	597	96
	<i>Recommendation No. 42.</i> Service Instructions for the use of Long-distance Operators ... ..	597	96
D.	<i>Recommendation No. 43.</i> International Telephone Charges ... ..	598	97
	<i>Recommendation No. 44.</i> Rates for Conference Calls ... ..	600	101
	<i>Recommendation No. 45.</i> Rates for Subscription Calls ... ..	600	101
	<i>Recommendation No. 46.</i> Rates applicable to Calls originating from, or to be completed at, a Public Call Box ... ..	601	102
	<i>Recommendation No. 47.</i> Rates applicable to Press Calls ... ..	601	102
	<i>Recommendation No. 48.</i> Calls made to a Wrong Number ... ..	601	103
	<i>Recommendation No. 49.</i> Minimum Traffic to be guaranteed to Transit Countries ... ..	602	104
	<i>Recommendation No. 50.</i> Radio Broadcast Transmissions ... ..	603	106
	<i>Recommendation No. 51.</i> International Calls using a Radio telephone Circuit . ... ..	610	116
	<i>Recommendation No. 52.</i> Picture Transmission between Correspondents over General Service Circuits (conditions relating to acceptance and tariffs) ... ..	610	116
	<i>Recommendation No. 53.</i> No Reply from the Calling or Called Subscriber ... ..	611	119
	<i>Recommendation No. 54.</i> Application of Report Charges in connection with Radio Telephone Circuits ... ..	612	120
	<i>Recommendation No. 55.</i> Standardisation of the Hours of Light Traffic for the Application of Tariffs ... ..	613	120
	<i>Recommendation No. 56.</i> Tolerance and Arrangements for Registering the Duration of Calls ...	613	121
	<i>Recommendation No. 57.</i> Recording the Chargeable Duration of Calls ... ..	613	121
	<i>Recommendation No. 58.</i> Defaulting Subscribers ... ..	614	122
	<i>Recommendation No. 59.</i> Publicity Expense ... ..	614	123
E.	<i>Recommendation No. 60.</i> International Traffic Statistics ... ..	615	124
	<i>Recommendation No. 61.</i> Publication of General Telephone Statistics by the International Tele- communication Union... ..	617	127
	<i>Recommendation No. 62.</i> Supervision of International Telephone Traffic ... ..	620	131
	<i>Recommendation No. 63.</i> Formula for determining the necessary Number of Circuits to handle a given traffic during various hours of the day ... ..	623	135
	<i>Recommendation No. 64.</i> Forecast of International Traffic. Lists of Circuits to be established ...	623	136

# COMITE CONSULTATIF INTERNATIONAL TELEPHONIQUE

*Xth Plenary Meeting, Budapest, September 3-10th, 1934.*

## PART 1.

### REGULATIONS AND RECOMMENDATIONS CONCERNING THE ORGANISATION OF THE COMITE CONSULTATIF INTERNATIONAL TELEPHONIQUE.

#### A. EXTRACT FROM THE TELEPHONE REGULATIONS ANNEXED TO THE INTERNATIONAL TELECOMMUNICATION CONVENTION, MADRID, 1932.

##### Article 37 of the Telephone Regulations.

##### COMITE CONSULTATIF INTERNATIONAL TELEPHONIQUE (C.C.I.F.).

[223] § 1. An International Telephone Consultative Committee (C.C.I.F.) is charged with the study of technical questions and questions of exploitation and tarification which concern international telephony and which are submitted to it by the Administrations and operating companies.

[224] § 2. (1) It is formed of experts of those Administrations and operating companies which notify their desire to take part in its work. The notification is addressed to the Administration of the country in which the last administrative conference was held.

[225] (2) The expenses of the C.C.I.F. are borne in their entirety by the countries taking part and are shared between them in a manner similar to that adopted for the apportionment of the expenses of the Bureau of the Union.

[226] (3) When a country is not represented by an Administration, but by one or more operating companies, the share of such country is borne by the operating company or companies which represent the country. The operating companies are invited to agree together in sharing among themselves the contribution of such country; in the absence of agreement, the contribution is divided into equal shares to be borne by the companies.

[227] (4) Each Administration or operating company bears the personal expenses of its experts.

[228] § 3. In principle, the meetings of the C.C.I.F. take place every two years. Nevertheless, a meeting which has been fixed may be put forward or postponed by the Administration which has called it, on the request of ten participating Administrations, if the number and nature of the questions to be examined justify this course.

[229] § 4. (1) The languages and method of voting used in the plenary assemblies, committees and sub-committees, are those adopted by the last plenipotentiary or administrative conference.

[230] (2) When, however, a country is not represented by an Administration, the whole of the experts of the operating companies of such country, whatever their number, are entitled to a single vote only.

[231] § 5. The Director of the Bureau of the Union or his representative and the representatives of the other international consultative committees, C.C.I.R. and C.C.I.T., have the right to take part in the meetings of the C.C.I.F. in a consultative capacity.

[232] § 6. The foregoing provisions relative to the organisation and functions of the C.C.I.F. are completed by internal regulations, of which the essential provisions are set out in the annexe to these Regulations.

## APPENDIX TO ARTICLE 37 OF THE TELEPHONE REGULATIONS

### INTERNAL REGULATIONS OF THE INTERNATIONAL TELEPHONE CONSULTATIVE COMMITTEE (C.C.I.F.).

#### Article 1.

##### ORGANISATION.

The International Telephone Consultative Committee (C.C.I.F.) comprises four organisations :—

- (a) the plenary assembly (A.P.) ;
- (b) the committees of rapporteurs (C.R.) ;
- (c) the laboratory of the European fundamental system of reference for telephone transmission (SFERT) ;
- (d) the general secretariat.

#### Article 2.

##### PLENARY ASSEMBLY.

§ 1. The task of the plenary assembly is to approve, reject or modify the reports and the draft avis presented by the committees of rapporteurs, and to decide upon the study of new questions which are submitted to it by the acceding Administrations and operating companies.

§ 2. Each plenary assembly meets in a town and on a date fixed by the preceding plenary assembly.

§ 3. The first session of a plenary assembly is opened by the representative of the country in which it is held. The chairman, vice-chairman and secretaries are elected at this session.

§ 4. Groups or organisations dealing with questions likely to interest international telephony may be invited to take part in certain sessions in a consultative capacity. Representatives of manufacturers of plant are not authorised to be present at sessions of the plenary assembly. The plenary assembly fixes the representation of the C.C.I.F. at meetings of organisations dealing with questions likely to interest international telephony.

§ 5. The plenary assembly sets up the necessary committees of rapporteurs to deal with the questions which it has put down for study.

§ 6. The plenary assembly chooses three auditors entrusted with the examination of the draft annual budget prepared by the general secretary, and also the accounts of the past year. It examines the report made by the auditors for the period subsequent to the last plenary assembly.

§ 7. The various recommendations adopted by the plenary assembly must bear the word "unanimously," if the recommendation has been adopted unanimously by those voting, or the words "by the majority" if the recommendation has been adopted by a majority.

§ 8. The C.C.I.F. forwards the recommendation which it issues to the Bureau of the Union, drawing attention to the recommendation or parts of recommendations which would be the most interesting to put in the Journal published by the Bureau.

### Article 3.

#### COMMITTEES OF RAPPORTEURS.

§ 1. The task of the committees of rapporteurs is to make a close study of the new questions and to lay before the next plenary assembly a detailed report on each question, accompanied by draft avis.

§ 2. (1) Each committee of rapporteurs elects a principal rapporteur who assumes the direction of the work of the committee of rapporteurs and has the power to call together the rapporteurs of his committee, with the authority of his Administration.

(2) So far as practicable, questions must be settled by correspondence ; for this purpose the principal rapporteur may correspond direct in writing with the other members of his committee. But if a question cannot be completely settled in this way, he has the right to suggest meetings at suitable places, in order that the question under examination may be discussed orally.

(3) In order to avoid repeated journeys and prolonged absences, the committees of the same group hold their meetings in the same town and at the same time, in accordance with a scheme of meetings drawn up by the general secretary and approved by the Administrations concerned.

§ 3. The committees of rapporteurs may invite representatives of manufacturers of plant to take part in certain of their studies and discussions, if it appears that their collaboration would be helpful.

### Article 4.

#### LABORATORY OF THE EUROPEAN FUNDAMENTAL SYSTEM OF REFERENCE FOR TELEPHONE TRANSMISSION (S.F.E.R.T.).

§ 1. The SFERT serves as a centre for the measurements of transmission and co-ordination of transmission data relating to telephone systems used in all the European countries.

§ 2. (1) The laboratory of the SFERT carries out the calibration of telephone instruments on the request and at the expense of Administrations and operating companies, whether or not they are members of the C.C.I.F.

(2) At the request of the plenary assembly or the committees of rapporteurs, it carries out experiments and tests with a view to facilitating the settlement of new questions set down for study by the plenary assembly.

### Article 5.

#### GENERAL SECRETARIAT.

§ 1. (1) The general secretary is chosen by the plenary assembly. His remuneration is payable out of the budget of the C.C.I.F. and is fixed by the plenary assembly.

(2) The general secretary keeps the whole of the correspondence of the C.C.I.F.

(3) For the management of business he has an office maintained from the budget of the C.C.I.F. He is charged with the recruitment and supervision of the staff of this office and of the staff of the laboratory.

§ 2. (1) The general secretary takes part in the meetings of the plenary assembly and in the meetings of the committees of rapporteurs in a consultative capacity.



(2) He arranges the next session of the plenary assembly ; he draws up the agenda of that session in accordance with the terms of the reports presented by the committees of rapporteurs.

(3) He gives the plenary assembly an account of the activities of the C.C.I.F. since the last plenary assembly.

## **B.—RECOMMENDATIONS OF THE INTERNATIONAL TELEPHONE CONSULTATIVE COMMITTEE.**

*The International Telephone Consultative Committee—*

*Unanimously recommends :—*

That the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932, which deal with the organisation and internal regulation of the International Telephone Consultative Committee (article 37 and annexe), should be detailed as follows :—

### **(a) Plenary Assembly (A.P.).**

1. The exact date of the A.P. is fixed by the Administration issuing the invitation in collaboration with the General Secretary (S.G.) and after consideration of the progress of the work of the Commissions de rapporteurs (C.R.). Administrations or operating companies belonging to the C.C.I.F. who wish to be represented at a certain A.P. must advise the S.G. by letter or telegram at least one month before the meeting, of the names of the members of their delegation, and especially the name of the Chief Delegate.

Each delegation introduced in this manner, has one vote.

Recommendations submitted to a vote are considered as accepted if a majority is obtained ; the minutes will indicate the results of the voting without specifying the delegations voting for or against ; the corresponding recommendation will also mention these results in the form :—

“ The C.C.I.F. unanimously recommends . . . ” or “ The C.C.I.F. passes by . . . votes against . . . votes the recommendation . . . . ”

A delegation is not permitted to vote for an Administration or operating company which has not sent a delegation.

2. At the closing session the S.G. will give a résumé of the work, including especially the recommendations approved and a list of the questions to be studied, or of which the study is to be continued. The A.P. appoints the Administrations or operating companies whose representatives will form the various C.R., this appointment holding until the next session.

3. The A.P. selects 3 substitute auditors to replace in a stated precedence any appointed auditor or auditors who may be prevented from acting.

4. New questions, studied by an A.P. are divided into three categories :—

Category A.1. Questions for which an international agreement covering the whole world is necessary.

Category A.2. Questions for which an international agreement covering Europe only is necessary.

Category B. Questions of a documentary character for which no international agreement is required.

### **(b) Secretary General (S.G.).**

1. The S.G. is the Director of the office of the C.C.I.F. He is elected by the A.P. from among the officials of the member Administrations for an indefinite period, but with reciprocal powers of terminating his engagement at the end of each calendar year. As confidant of all the Administrations

and operating companies it is desirable that, for the period of his office, he should not be entrusted with any active service in his Administration.

2. The S.G. has authority to deal directly with the Chief Rapporteurs of the C.R.

3. In order that the S.G. may always keep in touch with engineering progress, Administrations and operating companies permit him to visit their installations and obtain for him all the necessary information. The expenses incurred in this way are at the charge of the C.C.I.F.

4. The S.G. makes all arrangements for the preparation of the Plenary Assemblies (A.P.).

5. During the first quarter of each year the S.G. prepares an account of the preceding year as at the 31st December and approximate budget proposals for the following year which he submits to the approval of the auditors before submitting them to the next A.P. The expenses of the current year are met by means of subscriptions requested during the previous year. An emergency fund enables the time between two budgetary periods to be covered and meets any unforeseen expenditure in excess of the budget forecast.

#### **(c) The Commissions of Rapporteurs (C.R.).**

1. To facilitate the work, the number of Administrations or operating companies, members of a C.R., should be as small as possible and should not in any case exceed six.

In principle, there are three groups of C.R., that of the Commissions dealing with questions on protection, that of the Commissions dealing with questions on transmission, and that of the Commissions dealing with questions of operating.

2. During the meeting of the A.P. the C.R. hold themselves at the disposition of the A.P.

3. To prepare the general programme of meetings of the C.R. each Chief Rapporteur informs the S.G. in good time of the number of days required to complete the work of his C.R. and, if he intends holding a combined meeting with one or several other C.R.'s, of the number of days required for this purpose.

4. The report drawn up by a C.R. as well as all the documents which have been used to prepare this report are sent to the Administrations and operating companies as early as possible and in any case at least one month before the date of the next A.P. The Administrations and operating companies will communicate this document to all the experts whom it is considered may be usefully consulted.

Questions which have not formed the subject of a report, prepared under the conditions indicated above, cannot be placed on the agenda of the A.P.

#### **(d) Financial Arrangements.**

1. The contributions are payable in advance in one sum in January of each year, by cheque or draft (virement de compte) in Gold Francs. The annual total expenditure shall not exceed 150 000 Gold Francs.

2. The expenses involved in the maintenance of the European Master Reference System for Telephone Transmission (SFERT) are included in the contributions paid by the various Administrations and operating companies belonging to the C.C.I.F.

3. In order to divide the operating expense of the Committee among the countries belonging to the C.C.I.F. each member country may choose between the classification adopted by the International

Telecommunication Union comprising six classes and a classification based on population and also comprising six classes as follows :—

Class 1	population of over 35 millions.
" 2	population of between 35 and 20 millions.
" 3	population of between 20 and 8 millions.
" 4	population of between 8 and 3 millions.
" 5	population of between 3 and 1 millions.
" 6	population of less than 1 million.
Nations in Class 1 are each charged 25 units.	
" " Class 2	" " " 20 "
" " Class 3	" " " 15 "
" " Class 4	" " " 10 "
" " Class 5	" " " 5 "
" " Class 6	" " " 3 "

#### **Representation on the C.C.I.F. of Operating Companies in Countries where the State Telephone Administration is a member of the C.C.I.F.**

*The International Telephone Consultative Committee—*

*Unanimously recommends :—*

1. That the operating companies within the boundaries of an Administration belonging to the C.C.I.F., be regarded as forming an integral part of the telephone system of that Administration, who must decide if it is necessary to include representatives of these operating companies in the delegation from their country to the A.P. of the C.C.I.F.
2. That at the A.P. of the C.C.I.F. any one country may only have a single delegation representing both the Administration and the operating companies within the boundaries of that country. The members of this delegation are all chosen by the Administration of the country concerned.

#### **Membership of the C.C.I.F. of Operating Companies in Countries where there is no State Telephone Administration.**

*The International Telephone Consultative Committee—*

*Unanimously recommends :—*

That the C.C.I.F. upon receiving an application for membership from an operating company (controlling international terminal exchanges) shall approach, via the usual diplomatic channels, the Government of the country concerned in order to ascertain :—

- (a) Which are the various companies operating such terminal stations in its country.
- (b) The operating companies wishing to become members of the C.C.I.F.
- (c) The name of the head of the delegation representing these operating companies at the Plenary Assemblies of the C.C.I.F., this chief delegate having been chosen by common agreement between the interested operating companies, or, if such agreement has not been attainable, by the Government of the country concerned.

#### **Membership of the C.C.I.F. of Colonies, Protectorates and Territories governed by Sovereignty or Mandate.**

*The International Telephone Consultative Committee—*

*Unanimously recommends :—*

That the participation in the C.C.I.F. of Colonies, Protectorates and territories under Sovereignty, Authority or Mandate should be in accordance with the Article 5 of the International Telecommunication Convention, Madrid, 1932, concerning the conditions of participation by these countries in International Conferences.

**Technical Collaboration between the C.C.I.F. and Technical Organisations dealing with questions likely to have a bearing on International Telephony.**

*The International Telephone Consultative Committee—*

*Unanimously recommends :—*

1. That it is desirable to establish collaboration between the C.C.I.F. and all the technical organisations which deal with questions likely to have a bearing on International Telephony :

International Consultative Committee for Telegraph Communications. (C.C.I.T.)

International Consultative Committee for Radio-electric Communications. (C.C.I.R.)

International Union of Railways.

International Electro-technical Commission.

International Conference of the Chief Power Systems.

International Union of Producers and Distributors of Electrical Energy.

Committee on International Telephony of the International Chamber of Commerce.

International Union of Tramways, Local Railways and Public Motor Transport.

Advisory and Technical Commission on Communications and Transit of the League of Nations Union (including the organisation operating the League of Nations Radio-electric station).

Technical Commission of the International Radio Union.

2. That all these organisations should be sent such reports of the work of the C.C.I.F. as are likely to be of interest to them.

**Collaboration between the C.C.I.F. and the Bureau of The International Telecommunication Union.**

*The International Telephone Consultative Committee, in agreement with the Bureau of the International Telecommunication Union—*

*Unanimously recommends :—*

1. That the C.C.I.F. should undertake the study of all technical and operating questions concerning international telephony, in accordance with the provisions of paragraph 223 of the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932, and make recommendations on these subjects.

The Bureau of the International Telecommunication Union is authorised to participate, as consultant, in the deliberations at the Plenary Session of the C.C.I.F., and if it deems it advisable, at meetings of the C.R. dealing with traffic, operating, tariffs and questions of organisation relating to the co-operation between the Bureau of the International Telecommunication Union and the C.C.I.F.

2. That the recommendations of the Plenary Sessions of the C.C.I.F. are to be submitted by the S.G. for approval by the Administrations or operating companies represented on the C.C.I.F.\*

3. That the S.G. of the C.C.I.F. is to send to the Bureau of the International Telecommunication Union all the documents of the C.C.I.F. and of its C.R.'s dealing with questions of traffic, operating, tariffs and questions of organisation concerning relations between the Bureau and the C.C.I.F.

Similarly the Bureau of the International Telecommunication Union will send the S.G. of the C.C.I.F. circulars, notices and publications of the Bureau relating to telephony.

**Liaison Committee between the various International Organisations engaged on questions relating to Electricity.**

*The International Telephone Consultative Committee—*

*Considering :—*

The step taken by the Electro-technical Commission to co-ordinate the efforts of the various International Organisations engaged on questions concerning electricity,

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\* In the case of countries represented on the C.C.I.F. by operating companies the S.G. will communicate with the Head of the Delegation in each of these countries, in order to ascertain whether the operating companies approve of the C.C.I.F. recommendations.

*Unanimously recommends :—*

That the C.C.I.F. should be represented on this Liaison Committee, it being understood :—

(a) That the Liaison Committee will consist only of representatives from the Offices of these Organisations.

(b) That at their meetings, the members of the Liaison Committee will restrict themselves to procuring all the useful information as to the dates of the anticipated meetings of their organisations and the programme of their work and to the exchange of views on methods of collaboration between their organisations, without taking any decision on this subject.

(c) That all steps taken concerning questions relating to telephony will remain within the province of the C.C.I.F.

#### **Secretariat Staff Rules of the C.C.I.F.**

**Cl. 1.**—The control of the Secretarial Staff will be exercised by the Plenary Assembly (A.P.) of the Committee, which will fix the salaries and expenses of all the employees in accordance with the proposals of the Secretary-General (S.G.).

**Cl. 2.—Nomination, Dismissal, Resignations.**—The Secretary-General will engage the staff of the Secretariat after satisfying himself as to their physical and technical ability for the class of work for which they are destined, and after obtaining references from responsible persons as to their general character.

The Secretary-General will report the engagement of each new member of the staff to the Plenary Assembly. A candidate for a vacancy may, at the discretion of the Secretary-General and before nomination, be required to undergo a medical examination.

The Secretary-General may terminate the engagement of any employee under the conditions stated in Cl. 3 by one month's notice in writing to the person concerned ; also any employee who wishes to terminate his employment may give one month's notice in writing to the Secretary-General.

The resignation (or dismissal) of an employee, with the reasons, shall be brought to the notice of the Plenary Assembly by the Secretary-General.

**Cl. 3.—Disciplinary Penalties.**—The employee who fails in his duties, either intentionally, by negligence or by imprudence, will be liable to a disciplinary penalty corresponding to the degree of the fault. The disciplinary penalties are :—

- (a) reprimand ;
- (b) reduction of pay within limits to be fixed by the Plenary Assembly ;
- (c) dismissal.

Reprimands mentioned under (a) are given by the Secretary-General ; reduction of pay mentioned under (b) is decided by the Plenary Assembly, on the report of the Secretary-General.

Dismissal mentioned under (c) is decided by the Secretary-General ; a period of eight days from the time of the written notice of the Secretary-General to the employee concerned is granted to this employee so that he may, if desired, give any explanation to the auditors of the C.C.I.F. If the auditors consider the explanation satisfactory, they will advise the Secretary-General of it within a period of three weeks. In such a case dismissal is deferred until the next Plenary Assembly, when a final decision will be given.

**Cl. 4.—Working Hours.**—The working hours will be fixed by the Secretary-General ; they will be at least 33 hours per week, and may, according to the requirements of the service be extended to 44 hours without special payment.

**Cl. 5.—Vacations.**—Each employee has the right to an annual holiday, with salary, of from three weeks to one month.

Exceptions to this rule will be granted by the Plenary Assembly, on the proposal of the Secretary-General.

**Cl. 6.—Illness, Maternity.**—On receipt of a medical certificate, leave of absence, with salary, may be granted by the Secretary-General for a maximum period of three months at full salary, followed by three months at half-salary.

On the instructions of the Secretary-General an employee will be examined (by the doctor nominated by the auditors of the C.C.I.F., on the proposal of the Secretary-General) before granting or prolonging sick leave.

When the period of illness is in excess of five months, the auditors of the C.C.I.F. will decide whether payment shall be made to the employee concerned for the period of sickness in excess of the first five months.

In maternity cases leave with full salary can at most extend over a period of two months, which will be granted to the employee following a report of a medical specialist approved by the Secretary-General, and may be taken partly before and partly after the confinement.

Pay for sickness or maternity, as well as salaries for any employee or employees temporarily replacing the employee or employees on leave, will be paid by drawing on the reserve fund of the C.C.I.F.

**Cl. 7.—Accidents occurring whilst at Work.**—In case of accident to any employee, the C.C.I.F. will pay the cost of medicine and drugs and also any indemnity necessary.

All expenses mentioned above will be paid, when necessary, by drawing on the reserve fund of the C.C.I.F.

**Cl. 8.—Pensions.**—No pension will be guaranteed by the Committee to employees whose annual salary exceeds 18000 French francs. When engaging such an employee, the Secretary-General will draw his attention to the fact that it is in his interest to join one of the insurance companies such as the National Insurance Bank for Old Age Pensions, 56, Rue de Lille, Paris.

Each employee, whose salary does not exceed 18000 French francs per annum will receive, in accordance with the French Law pertaining to Social Insurance and subsequent modifications of this Law, a yearly card as provided by said Law, on which stamps will be affixed each month, the expense of which will be shared equally by the C.C.I.F. and the employee. This insurance card refers particularly to premature risks of infirmity, old age and death.

#### **Staff Rules of the European Master Reference System for Telephone Transmission Laboratory.**

**Cl. 1.**—The control of the staff of the European Master Reference System for Telephone Transmission Laboratory (hereinafter called "Laboratory") is exercised by the Permanent Commission (C.P.)\* formed by the C.C.I.F. to consider questions relating to the Master System.

**Cl. 2.—Nomination, Dismissal, Resignation.**—The Secretary-General (S.G.) of the C.C.I.F. will engage employees for the Laboratory on the recommendation of the Permanent Commission (C.P.) after enquiries from responsible persons concerning their general character, and after satisfying himself as to their physical and technical abilities for the class of work for which they are intended.

A candidate for a vacancy must, if required, and before nomination, undergo a medical examination.

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\* This Permanent Commission is also the 4th C.R. of the C.C.I.F.

Any employee may terminate his employment by giving three months' notice in writing to the engineer in charge of the Laboratory.

On the proposition of the engineer-in-charge the Secretary-General may dismiss an employee who does not belong to any Telephone Administration, by one month's notice given in writing to the person concerned.

**Cl. 3.**—Laboratory employees are under the supervision of the engineer in charge of the Laboratory, with regard to the carrying out of any technical work which may be entrusted to them.

The engineer will send to the members of the Permanent Commission a quarterly report on the work of the Laboratory during the past quarter.

**Cl. 4.—Hours of Work.**—The normal working hours will be fixed by the engineer in charge of the Laboratory ; they will be at least 33 hours per week and may, according to the requirements of the service, be extended to 44 hours without special payment.

**Cl. 5.—Vacations.**—Each employee has the right to an annual holiday, with salary, of three weeks to one month.

Exceptions to this rule will be granted by the Permanent Commission on the proposal of the engineer in charge of the Laboratory.

**Cl. 6.—Illness, Maternity.**—On receipt of a medical certificate, and on the advice of the engineer in charge of the Laboratory, leave of absence, with salary, may be granted by the Secretary-General for a maximum period of three months at full salary, followed by three months at half-salary.

On the instructions of the Secretary-General an employee will be examined (by the doctor nominated by the auditors of the C.C.I.F., on the proposal of the Secretary-General) before granting or prolonging sick leave.

When the period of illness is in excess of five months, the auditors of the C.C.I.F. will decide whether payment shall be made to the employee concerned for the period of sickness in excess of the first five months.

In maternity cases leave with full salary can at most extend over a period of two months, which will be granted to the employee following a report of a medical specialist approved by the Secretary-General, and may be taken partly before and partly after the confinement.

Pay for sickness or maternity, as well as salaries for any employee or employees temporarily replacing the employee or employees on leave, will be paid by drawing on the reserve fund of the C.C.I.F.

**Cl. 7.—Accidents occurring whilst at Work.**—In case of accident to any employee, the C.C.I.F. will pay the cost of medicine and drugs and also any indemnity necessary.

All expenses mentioned above will be paid, when necessary, by drawing on the reserve fund of the C.C.I.F.

**Cl. 8.—Pensions.**—No pension will be guaranteed by the Committee to employees whose annual salary exceeds 18000 French francs. When engaging such an employee, the Secretary-General will make sure that he is regularly enrolled in an officially recognised pensions organisation.

Each employee, whose salary does not exceed 18000 French francs per annum will receive, in accordance with the French Law pertaining to Social Insurance and subsequent modifications of this Law, a yearly card as provided by said Law, on which stamps will be affixed each month, the expense of which will be shared equally by the C.C.I.F. and the employee. This insurance card refers particularly to premature risks of infirmity, old age and death.

PART 2  
RECOMMENDATIONS CONCERNING QUESTIONS OF OPERATING AND  
TARIFFS

A—GENERAL.

RECOMMENDATION No. 1.

Definitions concerning operating in International Telephony.

*The International Telephone Consultative Committee—*

*Considering :—*

That it is desirable to define precisely certain fundamental data for measuring volume of traffic, speed of service, use of circuits and general operating results including those of the quality of the service and which are intended for use by Administrations and Operating Companies.

*Unanimously recommends :—*

That the following definitions, which repeat, detail or amplify those contained in Article 2 of the RTf\* be used in the International Telephone Services :—

**1. Booking a Call.**—In the International Service Handbook [Para. 14 of the RTf (Article 2)] “Booking a Call” is defined as the first request made by the caller for a telephone call. In an automatic international service the operation of the dial by a caller to automatically establish connection with his correspondent may be similarly considered as “Booking a Call.” A request for information concerning the delay, cost, etc., of a call or a request for a new attempt to establish the connection is not considered as “Booking a Call.”

Corresponding terms :—

In Germany ...	...	...	Gesprächsanmeldung.
In Spain ...	...	...	llamada.
In U.S.A. ...	...	...	call.
In France ...	...	...	demande de communication.
In Italy ...	...	...	richiesta di conversazione.
In Sweden ...	...	...	samtalsbeställning.

**2. Call.**—The “Call” [Para. 15 of the RTf (Art. 2)] is the effect given to the booking of a call when communication has been established between the calling telephone station and the called telephone station.

Corresponding terms :—

In Germany ...	...	...	Gespräch.
In Spain ...	...	...	conversación.
In U.S.A. ...	...	...	message.
In France ...	...	...	conversation.
In Italy ...	...	...	conversazione.
In Sweden ...	...	...	samtal.

**3. Percentage of Effective Calls.**—This is the percentage of the total number of “Calls” to the number of “Booked Calls.”

Corresponding terms :—

In Germany ...	...	...	Vomhundertsatz der ausgeführten Anmeldungen.
In Spain ...	...	...	porcentaje de llamadas completadas.
In U.S.A. ...	...	...	per cent completion.
In France ...	...	...	pourcentage des demandes satisfaites.
In Italy ...	...	...	percentuale delle richieste soddisfatte.
In Sweden ...	...	...	procent utförda samtal.

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\* The abbreviation “RTf” indicates the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932.



**4. Traffic per average working day.**—The term “ traffic per average working day ” is the average daily traffic on working days throughout a fixed period. This average is obtained by dividing the total working day traffic throughout the period by the number of working days. Days excluded from this calculation are Sundays, holidays, half-holidays, the day before or after a holiday, and days upon which for some reason or other the traffic is abnormal.

Corresponding terms :—

In Germany ...	...	durchschnittlicher Werktagsverkehr.
In Spain ...	...	tráfico medio por día laborable.
In U.S.A. ...	...	traffic per average business day.
In France ...	...	trafic moyen d'un jour ouvrable.
In Italy ...	...	traffico medio di un giorno lavorativo.
In Sweden ...	...	genomsnittstrafik per söckendag.

**5. Exchange Busy Hour.**—This is the period of sixty consecutive minutes (commencing at the hour or half-hour) during which the largest number of calls of all kinds (outgoing calls, incoming calls, transit calls, etc.) are handled by the office concerned.

Corresponding terms :—

In Germany ...	...	Hauptverkehrsstunde des Amtes.
In Spain ...	...	hora activa de un centro.
In U.S.A. ...	...	office busy hour.
In France ...	...	heure chargée pour un bureau téléphonique.
In Italy ...	...	ora di massimo traffico di un ufficio telefonico.
In Sweden ...	...	stationens trafikstarkaste timme.

**6. Circuit or Circuit Group Busy Hour.**—This is the period of sixty consecutive minutes (commencing at the hour or half-hour) during which the circuit or circuit group carries the largest number of calls both incoming and outgoing.

Corresponding terms :—

In Germany ...	...	Hauptverkehrsstunde für eine Leitung oder Leitungsgruppe.
In Spain ...	...	hora activa de un circuito o grupo.
In U.S.A. ...	...	circuit or circuit group busy hour.
In France ...	...	heure chargée pour un circuit ou un groupe de circuits.
In Italy ...	...	ora di massimo traffico di un circuito o di un gruppo di circuiti.
In Sweden ...	...	brådaste timmen å en ledningsvia.

**7 Telephone Circuit.**—A telephone circuit [Paragraph 8 of the RTf (Article 2)] is an electrical connection permitting the establishment of a telephonic communication in both directions between two telephone exchanges. A telephone circuit is a “ Trunk Telephone Circuit ” when it connects two telephone exchanges, situated in two different towns of the same country. A telephone circuit is an “ International Telephone Circuit ” when it connects two telephone exchanges situated in two different countries, in this case the two telephone exchanges directly connected by the international circuit are called “ Terminal Exchanges.”

Corresponding terms :—

In Germany ...	...	Fernsprechleitung.
In Spain ...	...	circuito telefónico.
In U.S.A. ...	...	telephone circuit.
In France ...	...	circuit téléphonique.
In Italy ...	...	circuito telefonico.
In Sweden ...	...	avgiftsbelagd ledning.

**Note.**—Telephone circuits are sometimes further described as Ordinary Telephone Circuits which are completely metallic circuits (Physical Circuits or Phantom Circuits, two-wire or four-wire Circuits, also Carrier Circuits) and Radio-telephone Circuits, which are circuits not entirely metallic and which use radio-telephone links.

**8. Direct Call.**—In the international service [Para. 12 of RTf (Article 2)] a “ direct call ” is one established by means of a single international telephone circuit.

Corresponding terms :—

In Germany ...	...	unmittelbare Verbindung.
In Spain ...	...	comunicación directa.
In U.S.A. ...	...	direct international circuit connection.
In France ...	...	communication directe.
In Italy ...	...	comunicazione diretta.
In Sweden ...	...	oförmedlat samtal.

**9. Transit Call.**—In the international service [Para. 13, RTf (Article 2)] a “transit call” is one established by means of more than one international telephone circuit.

Corresponding terms :—

In Germany ...	...	Durchgangsverbindung.
In Spain ...	...	comunicación de tránsito.
In U.S.A. ...	...	built up international circuit connection.
In France ...	...	communication de transit.
In Italy ...	...	comunicazione di transito.
In Sweden ...	...	transitsamtal.

A Transit Call established by means of two international circuits is called a “Single Switch Call.”

Corresponding terms :—

In Germany ...	...	Durchgangsverbindung über zwei zwischenstaatliche Leitungen.
In Spain ...	...	comunicación de tránsito con una conexión.
In U.S.A. ...	...	one international switch connection.
In France ...	...	communication de transit simple.
In Italy ...	...	comunicazione di transito semplice.
In Sweden ...	...	samtal över en transitstation.

A Transit Call established by means of three international circuits is called a “Double Switch Call.”

Corresponding terms :—

In Germany ...	...	Durchgangsverbindung über drei zwischenstaatliche Leitungen.
In Spain ...	...	comunicación de tránsito con 2 conexiones.
In U.S.A. ...	...	two international switch connection.
In France ...	...	communication de transit double.
In Italy ...	...	comunicazione di transito doppia.
In Sweden ...	...	samtal över två transitstationer.

**10. Delay on International Circuit or Group of International Circuits.**—This is the time between the moment when the operator of the originating terminal exchange has received all details of the call and the moment when the call is established or could be established on the international circuit or group of circuits considered.

Corresponding terms :—

In Germany ...	...	Wartezeit in einer zwischenstaatlichen Fernleitung oder in einer Gruppe solcher Leitungen.
In Spain ...	...	demora internacional.
In U.S.A. ...	...	international component of speed of service interval.
In France ...	...	délai d'attente sur un circuit international ou sur un groupe de circuits internationaux.
In Italy ...	...	tempo d'attesa nel servizio internazionale.
In Sweden ...	...	väntetid.

**11. Total Delay for an International Call.**—This is the time between the moment when the caller has finished giving the details of the international call and the moment when communication is established with the station or person called—or even in the case of a préavis call, when the person called cannot be reached, the moment when the caller is informed that the person called is not available.

Corresponding terms :—

In Germany ...	...	Gesamtwartezeit in einer zwischenstaatlichen Verbindung.
In Spain ...	...	demora total en una comunicación internacional.
In U.S.A. ...	...	overall speed of service interval for international call.
In France ...	...	délai total d'attente pour une communication internationale.
In Italy ...	...	periodo totale di attesa per una comunicazione internazionale.
In Sweden ...	...	total väntetid för ett internationellt samtal.

**12. Average Delay on an International Circuit or Group of Circuits.**—This is the average waiting time, observed or calculated during the busy hours of an International Circuit or Group of Circuits.

Corresponding terms :—

In Germany ...	...	...	mittlere Wartezeit in einer zwischenstaatlichen Leitung oder in einer Gruppe zwischenstaatlicher Leitungen.
In Spain ...	...	...	demora media en un circuito o grupo de circuitos internacionales.
In U.S.A. ...	...	...	average international component of the speed of service interval (on an international circuit or group of circuits).
In France ...	...	...	délai moyen d'attente sur un circuit international ou sur un groupe de circuits internationaux.
In Italy ...	...	...	periodo medio di attesa su un circuito internazionale o su un gruppo di circuiti internazionali.
In Sweden ...	...	...	medelväntetid å en internationell ledning eller grupp av internationella ledningar.

**13. Speed of Answer on an International Circuit.**—This is the waiting time between the moment when the operator at one terminal exchange has finished the first ring on the international circuit and the moment when the operator at the other terminal exchange replies.

Corresponding terms :—

In Germany ...	...	...	Zeit bis zur Beantwortung des Rufs in einer zwischenstaatlichen Leitung.
In Spain ...	...	...	demora en contestar.
In U.S.A. ...	...	...	speed of answer.
In France ...	...	...	délai de réponse sur un circuit international.
In Italy ...	...	...	ritardo nella risposta su di un circuito internazionale.
In Sweden ...	...	...	svarstid.

**14. Total Time of Conversation.**—This is the period between the moment communication is established between the calling station and the called station and the moment when the calling station [Para. 141 RTf (Article 28, § 5)] indicates the end of the conversation (or the moment when communication is broken by an operator).

Corresponding terms :—

In Germany ...	...	...	Gesprächsdauer.
In Spain ...	...	...	duración de la conversación.
In U.S.A. ...	...	...	length of conversation.
In France ...	...	...	durée totale de la conversation.
In Italy ...	...	...	durata totale della conversazione.
In Sweden ...	...	...	verklig samtalstid.

**15. Chargeable Time of a Telephone Call** [Para. 20 of RTf (Article 2)]. The period of time which serves as the basis for calculating the charge for the call. [Paras. 140 and 141 of RTf (Article 28, §§ 4 and 5)].

**Note.**—The "Chargeable Time" may differ from the "Total Time."

1. Because the charge is made by indivisible periods.
2. Because in determining the "Chargeable Time" various incidents or difficulties which may have occurred during the conversation are taken into account.

Corresponding terms :—

In Germany ...	...	...	gebührenpflichtige Gesprächsdauer.
In Spain ...	...	...	duración computada.
In U.S.A. ...	...	...	chargeable time.
In France ...	...	...	durée taxable d'une conversation téléphonique.
In Italy ...	...	...	durata tassabile della conversazione.
In Sweden ...	...	...	taxered samtalstid.

**16. Holding Time.**—This is the time during which the international circuit or circuits are occupied for a telephone call (for the actual conversation plus the time the operators require the circuit or circuits for establishing the call).

Corresponding terms :—

In Germany ...	...	...	Belegungsdauer.
In Spain ...	...	...	tiempo de retención.
In U.S.A. ...	...	...	holding time.
In France ...	...	...	durée d'occupation.
In Italy ...	...	...	durata d'occupazione.
In Sweden ...	...	...	upptagen ledningstid.

**17. Operating Time.**—This is the difference between the “ Holding Time ” and the “ Length of Conversation.”

Corresponding terms :—

In Germany ...	...	Verlustzeit.
In Spain ...	...	tiempo de operación.
In U.S.A. ...	...	operating time.
In France ...	...	durée des manœuvres.
In Italy ...	...	durata delle preparazione.
In Sweden ...	...	expeditionstid.

**18. Circuit Usage** —This is the relation, expressed as a percentage between the sum of the “ holding times ” for various calls over a period of at least sixty consecutive minutes, and the length of such period in minutes.

Corresponding terms :—

In Germany ...	...	Belegungsdauer in Vomhundert.
In Spain ...	...	ocupación de un circuito.
In U.S.A. ...	...	circuit usage.
In France ...	...	coefficient d'occupation d'un circuit.
In Italy ...	...	coefficiente di occupazione di un circuito.
In Sweden ...	...	procent upptagen ledningstid.

**Note.**—Unless otherwise specified the “ circuit usage ” is calculated for the busiest hour for the group of circuits to which the circuit in question belongs.

**19. Hourly Paid Time Ratio.**—This is a percentage calculated from a fraction in which the numerator is the number of chargeable minutes during one hour and the denominator is 60 minutes.

Corresponding terms :—

In Germany ...	...	Gebührenminuten je Stunde in Vomhundert.
In Spain ...	...	rendimento de un circuito.
In U.S.A. ...	...	paid time ratio.
In France ...	...	rendement horaire d'un circuit.
In Italy ...	...	rendimento orario di un circuito.
In Sweden ...	...	procent taxerad tid.

**Note.**—Unless otherwise specified the hourly paid time ratio of a circuit is calculated for the busiest hour for the group of circuits to which the circuit in question belongs.

## RECOMMENDATION No. 2.

### Decentralisation of International Traffic.

*The International Telephone Consultative Committee —*

*Considering :—*

That the international network should not be a network connecting capitals exclusively, since such a network incurs delay in transmission of calls, a prolongation of the routes followed and a congestion of the internal network,

*Unanimously recommends :—*

That for decentralisation of the network, international transit centres be set up, similar to zone or regional centres in internal service, these centres being connected either directly or indirectly by circuits having the characteristics recommended by the C.C.I.F. for international circuits.

That, wherever possible, existing centres shall be chosen as the international transit centres.

**Note.**—The C.C.I.F. is studying a general programme of telephonic interconnection.

## RECOMMENDATION No. 3.

### Maximum Waiting Time for Ordinary International Calls.

*The International Telephone Consultative Committee—*

*Considering :—*

That, although it is desirable to put into service a sufficient number of circuits to allow for “ no delay ” calls on international service, it is not always possible to do this for economic reasons ; but

that, in all cases, it is preferable to reduce the waiting time for each international telephone connection to a minimum compatible with the cost of establishing each of the circuits used in this connection,

*Unanimously recommends :—*

1. That the maximum waiting time for ordinary private calls, during the busiest hour, shall not habitually exceed the following values, excepting for unusual cases (such as open-wire circuits or those where traffic is congested during a short interval) :—

- (a) One half-hour for international circuits not exceeding 500 km in length.
- (b) One hour for international circuits longer than 500 km.

2. That it is desirable for Administrations and operating companies to endeavour to reduce waiting times below those indicated above where economic conditions permit.

#### **RECOMMENDATION No. 4.**

##### **Establishment of the Nomenclature of the International Circuits and the Schematic Plan of the Cables.**

##### **I. Form in which the nomenclature of the international circuits should be arranged.\***

*The International Telephone Consultative Committee, in agreement with the International Telecommunication Union—*

*Unanimously recommends :—*

That in future the nomenclature of existing and projected international circuits, kept up to date and published by the Bureau of the International Telecommunication Union [Para. 36 of the RTT (Article 3, § 6)] should be arranged in accordance with the following indications:—

The nomenclature of the international telephone circuits should be presented in the form of the following table comprising 11 columns.

The nomenclature should be arranged in such a manner that a complete idea of the composition of each international circuit may be obtained without having to consult different pages of the nomenclature for the same circuit.

All the international circuits (excluding circuits connecting frontier towns) are arranged in alphabetical order according to their official designation.

##### **Column 1. Designation of the Circuits.**

Each international circuit is designated by the name of the two terminal exchanges followed by the number of the circuit, the names of the exchanges included in the designation of the circuit being those which figure on the official plans of their respective countries, the two names being placed in alphabetical order, e.g. Berlin-London 3.

##### **Column 2. Countries.**

Column 2 should include the names of the countries in whose territory the different sections of the circuit lie, in the order in which the circuit crosses them, going from one terminal exchange to the other terminal exchange in geographical order, e.g. for the circuit Berlin-London 3. Germany-Holland-Great Britain.

##### **Column 3. Length of Successive Homogeneous Sections in each Country (km).**

Column 3 should include the length of each homogeneous section of the circuit expressed in kilometres.

---

\* The International Telephone Consultative Committee recommends that each terminal station to which are connected international circuits, other than frontier circuits, should be provided with a nomenclature of international circuits.

#### Column 4. Type of Construction.

The type of construction of the various sections of the circuit should be shown as follows :—

Open-wire line	...	...	...	...	...	...	...	...	la.
Underground cable	...	...	...	...	...	...	...	...	st.
Aerial cable	...	...	...	...	...	...	...	...	ca.
Submarine cable	...	...	...	...	...	...	...	...	sm.

#### Column 5. Nature of Circuits.

The nature of the different sections of the circuit should be shown as follows :—

Two-wire side (or physical) circuit	...	...	...	...	...	2f.
Two-wire phantom circuit	...	...	...	...	...	2f. comb.
Four-wire side (or physical) circuit	...	...	...	...	...	4f.
Four-wire phantom circuit	...	...	...	...	...	4f. comb.

#### Column 6. Diameter of Conductors (mm).

The diameter of the conductors should be expressed in millimetres for each section of the circuit.

#### Column 7. Coil Loading or Continuous Loading.

This column should give concise information on the type of coil loading or continuous loading of each section of the circuit. In the case of coil loading the inductance per kilometre and the coil spacing should be shown :—

$$\text{e.g. } \begin{cases} 103 \text{ mH/km} \\ D = 1.66 \text{ km} \end{cases}$$

In the case of continuously loaded cables the inductance per kilometre followed by the word "Krarup" should be included, e.g., 13 mH/km Krarup. If a section of the circuit is neither coil loaded nor continuously loaded, this should be indicated in column 7 by "Non-loaded."

#### Column 8. Cut-off Frequency (p : s).

In this column the critical cut-off frequency (or frequency limit) should be expressed in periods per second for each loaded section of the circuit.

#### Column 9. Equivalent (at 800 p : s).

This column is divided into two parts. On the left the transmission equivalent at 800 periods per second is shown in nepers, and on the right this equivalent is shown in decibels. For each circuit the nomenclature must give both the number of nepers and the number of decibels.

#### Column 10. Names of Intermediate and Terminal Repeater Stations.

The names of intermediate or terminal repeater stations shown in this column should be grouped together by countries.

#### Column 11. Remarks.

It is desirable to include in this column, for each of the terminal exchanges, reference to the use of cord circuit repeaters for connecting two-wire—two-wire, two-wire—four-wire, and four-wire—four-wire as follows :—

$$\text{C.C. rep. } \frac{2f}{2f} \quad \frac{2f}{4f} \quad \frac{4f}{4f}$$

The nomenclature of the international telephone circuits should be set up in future in accordance with the table shown in Appendix No. 1.

After the list of circuits in alphabetical order there should be given a general summary showing, for connections between two certain countries, the number of circuits existing in each direction, including the circuits connecting the neighbouring networks of the frontier, as shown in Appendix No. 2.

Finally, following this, a list should be given (by countries and in each country by alphabetical order) of the terminal exchanges of the international circuits which have several designations in their own countries. The form of this list is shown in Appendix No. 3.

# APPENDIX 1.

## FORM OF TABLE FOR ESTABLISHING THE NOMENCLATURE OF THE INTERNATIONAL CIRCUITS.

Designa- tion of the Circuits.	Countries	Length of successive homogeneous Sections in each Country. (km)	Type of Con- struc- tion.	Nature of the Cir- cuit.	Diameter of Con- ductors. (mm)	Coil loading or continuous loading.	Cut-off fre- quency. p : s.	Equivalent at 800 p : s.		Names of Intermediate and Terminal Repeater Stations.	Remarks.
								nepers.	decibels.		
1.	2.	3.	4.	5.	6.	7.	8.	9.		10.	11.
Berlin- London 3	Germany	4	st	2f	2	Non-loaded	—	10	8.7	Berlin, Friesack, Perleberg, Vellahn, Hambg., Rotenbg., Bassum, Bohmte, Münster, Wesel.	C.C. rep. $\frac{2f}{2f} \frac{4f}{4f}$
	"	582	st	4f	0.9	Method 2	5400				
	"	193	st	4f	0.9	{ 103 mH/km	3300				
	Holland	20	st	4f	0.9	{ D=1.66 km					
	"	119	st	4f	1.29	30 mH/km D=1.65 km	5700				
	"	65	st	4f	1.23	25 mH/km D=1.84 km	5700				
	"	93	st	4f	1.8	100 mH/km D=1.761 km	2700				
	Gt. Britain	160	sm	4 fc.p.	2.33	{ 8.8 mH/km Krarup	—				
	"	41	st	4f	0.9	{ 48 mH/km D=1.83 km	3920				
	"	37.8	st	4f	0.9	{ 48 mH/km D 1.83 km	3920				
"	79	st	4f	0.9	{ 24 mH/km D 2.72 km	5570			London.	C.C. rep. $\frac{2f}{2f} \frac{4f}{4f}$	
		1393.8									

## APPENDIX 2.

Form of the General Summary of the International Circuits to be attached to the  
Nomenclature of the International Telephone Circuits.

### Telephone Connections between Germany and other Countries.

#### 1. Connections Germany-Belgium.

EXCHANGES IN DIRECT CONNECTION.										No. OF CCTS.
Aachen—Liège ...	...	...	...	...	...	...	...	...	...	1
Aachen—Verviers ...	...	...	...	...	...	...	...	...	...	2
Berlin—Antwerp ...	...	...	...	...	...	...	...	...	...	2
Berlin—Brussels ...	...	...	...	...	...	...	...	...	...	3
etc.										

#### 2. Connections Germany-Denmark.

Berlin—Copenhagen ...	...	...	...	...	...	...	...	...	...	3
Hamburg—Copenhagen ...	...	...	...	...	...	...	...	...	...	4
etc.										

### Telephone Connections between Belgium and other Countries.

#### 1. Connections Belgium-Germany.

EXCHANGES IN DIRECT CONNECTION.										No. OF CCTS.
Antwerp—Aachen ...	...	...	...	...	...	...	...	...	...	1
Antwerp—Berlin ...	...	...	...	...	...	...	...	...	...	2
Brussels—Berlin ...	...	...	...	...	...	...	...	...	...	3
Brussels—Frankfurt (Main) ...	...	...	...	...	...	...	...	...	...	1
Liège—Aachen ...	...	...	...	...	...	...	...	...	...	1
Liège—Cologne ...	...	...	...	...	...	...	...	...	...	2
etc.										

#### 2. Connections Belgium-Austria.

etc.

## APPENDIX 3.

Form of List of Terminal Exchanges having several designations to be attached to  
the Nomenclature of International Telephone Circuits.

NAME OF COUNTRY.	OFFICIAL DESIGNATION OF THE EXCHANGES.	UNOFFICIAL DESIGNATION OF THE EXCHANGES.
Belgium	Kortryk	Courtrai
Switzerland	Genève	Genf, Ginevra

### II. Form under which the Schematic Plan of the Cables should be set up.

*The International Consultative Committee, in agreement with the Bureau of the International Telecommunication Union—*

*Unanimously recommends :—*

That, in future, the plan showing the existing and projected cables, kept up to date and published by the Bureau of the International Telecommunication Union, should be set up in accordance with the following :—

In view of the rapid development of the European network of telephone cables, the plan should be re-edited at least every 2 years.

On one plan there should only be shown the cables already in service or those which it is known definitely will be in service before a new publication of the plan.



The distinction between a central exchange with a repeater station and a repeater station only is of little interest and should not be shown.

On the other hand, on each line representing a cable a reference number should be shown.

The reference number of a cable should correspond to a similar number on a list attached to the plan, on which should be indicated :—

The type of cabling :—

- D.M. (Dieselhorst Martin) or Quadded Cable.
- E. Star Quadded Cable.
- P.E. Four-pair Star Quadded Cable.

Also for each type of quad ; the number of quads, the diameter of the conductors and the type of loading. These indications should be given in the following form :—

Reference No. of the Cable.	Type of Cabling, total number of quads, loaded or non-loaded for the different homogeneous sections of the cable.	Different Classes of Loaded Quads.			Remarks.
		No. of Quads of the class concerned.	Diameter of the Conductors.	Type of Loading.	
1.	2.	3.	4.	5.	6.
4	Paris—Sélestat Paris—Nancy D.M. 94	12	1.3	non-loaded 177/107-1830 44/25-1830 177/107-1830	Aluminium screened.
		16	1.3		
		24	0.9		
		42	0.9		
	Nancy—Sélestat D.M.94	12	1.3	non-loaded 177/107-1830 44/25-1830 177/107-1830	Aluminium screened.
		16	1.3		
		18	0.9		
		46	0.9		
8	Boulogne—Canterbury E 7	7	2	Krarup physical 6.55 mH/km phantom 3.31 mH/km	Phantom circuits used.
11	Arnhem—Utrecht E. 117	82	1.29	155-1630 50-1630 155-1630	Phantom circuits not used.
		22	1.29		
		13	1.67		

#### RECOMMENDATION No. 5.

**Establishment of a Plan of European International Circuits specially designed or adapted for Music Transmission.**

*The International Telephone Consultative Committee—*

*Considering :—*

That one should not be expected to indicate by a special mark, on the schematic plan of European international telephone cables, the cables which contain circuits specially established or adapted for music transmission, since the plan in question is of the form which renders it unwieldy and inconvenient for this purpose.

*Unanimously recommends :—*

1. That the Bureau of the International Telecommunication Union [Para. 222 of RTf (Article 36)] draws and keeps up to date a plan of circuits specially established or arranged for music transmission. In view of the rapid development of such circuits in Europe, the plan should be re-edited at least every two years.

2. That, on this plan, the different circuits should be represented in the following manner (*see model plan*).

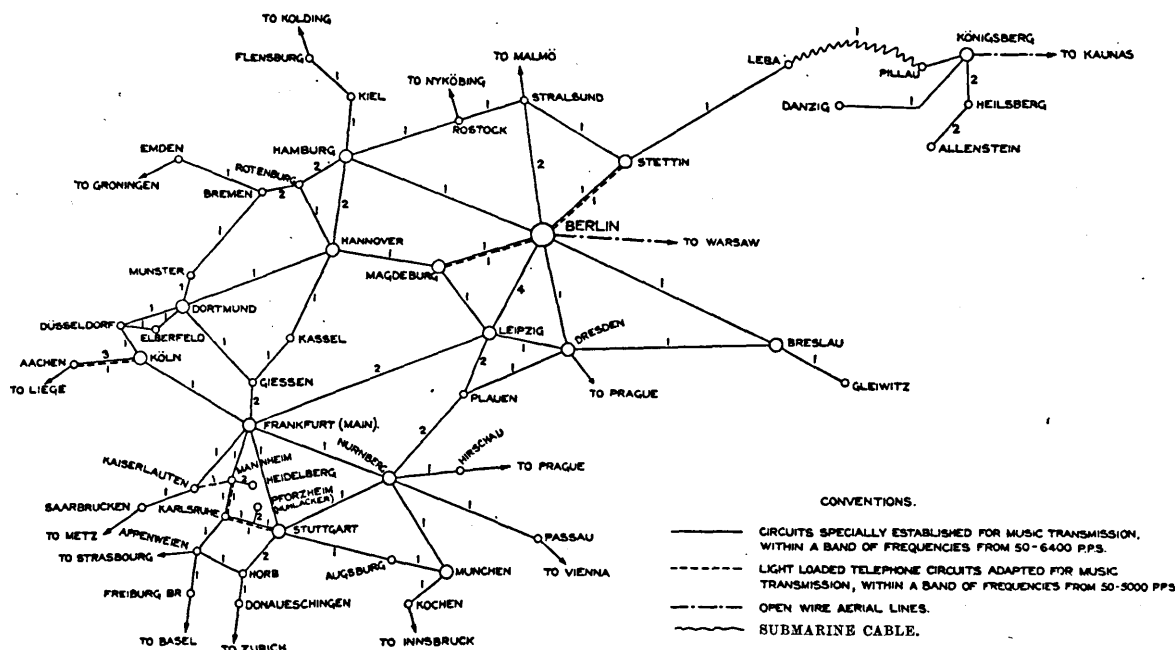
Full line : cable circuits specially established for music transmission (circuits transmitting effectively a band of frequency from 50—6400 p : p : s).

Dotted line : cable circuits arranged for music transmission (circuits transmitting effectively a band of frequency from 50—5000 p : p : s).

Chained dotted-line : aerial circuits.

For each line, the number of circuits used for music transmission will be indicated on the plan.

**TYPICAL DIAGRAM OF EUROPEAN INTERNATIONAL CIRCUITS  
SPECIALLY ESTABLISHED OR ARRANGED FOR RADIO-BROADCAST TRANSMISSIONS.**



**RECOMMENDATION No. 6.**

**Extension of the International Telephone Service.**

*The International Telephone Consultative Committee—*

*Considering :—*

That the application of paragraph 27 (§ 3 (1) of Article 3) of the RTf which prescribes that international telephone connections should take place between large geographical areas and not

between definite networks, will occasionally involve the establishment of communications leaving something to be desired as regards audition,

*Unanimously recommends :—*

1. That on circuits where hearing may be difficult, communication be allowed only after tests have been made between the terminal exchanges during the hours of light traffic.

2. In the case where these tests do not give satisfactory results, measures be taken as soon as possible by the Administrations and operating companies concerned to improve the transmission, for example, by the installation of repeaters or by the suppression of intermediate exchanges.

## **RECOMMENDATION No. 7.**

### **Arrangement between two Countries for International Telephone Service.**

*The International Telephone Consultative Committee—*

*Considering :—*

That the rapid development of international telephone service and the more and more frequent opening up of new international means of communication renders it desirable to facilitate the formulation of agreements between the Administrations and operating companies concerned.

*Unanimously recommends :—*

That the Administrations and operating companies shall adopt, as much as possible, a typical form in their agreements relating to international telephone service, and that they shall take the following text as a basis for the establishment of this agreement :—

**Telephone Service between the first terminal country (according to alphabetical order) and second terminal country.**

#### **Form of Agreement.**

##### **Article 1.**

A telephone service is organised between the first terminal country (in alphabetical order) and (the other terminal country).

To be completed as follows when the service is organised with transit Administrations or operating companies as intermediaries : “ by means of routes of communication established in the territory of (designation of transit country or countries).”

##### **Article 1 or 2.**

The arrangements provided in Chapter XXIV (Telephone Service) of the International Regulations (Revision of Brussels, 1928), attached to the International Telegraph Convention of St. Petersburg, are applicable to the telephone service between (the first terminal country according to alphabetical order) and (the other terminal country).

To be completed as follows when the service is organised with transit Administrations or operating companies as intermediaries : “ by means of routes of communication established in the territory of (designation of the transit country or countries),” according to the following provisions and additions :—

#### **List of Subscribers and Call Offices.**

The sale of telephone directories of one terminal country to the public in another terminal country shall be made in accordance with the regulations of the C.C.I.F. Recommendation No. 12, entitled : “ Directories.”

Orders for directories shall be addressed (from the first country in alphabetical order) to . . . .  
and for the directories (of the other terminal country) to . . . .

#### **Urgent Private Calls.**

Urgent private calls are (or are not) admitted.

#### **Urgent Aircraft Calls.**

Urgent aircraft calls are (or are not) admitted.

#### **Lightning Calls.**

Lightning calls are (or are not) admitted.

*Add in the first case :—*

The fee for a lightning call is fixed at . . . .

#### **State Calls.**

Urgent State calls are (or are not) admitted.

#### **Calls by Subscription.**

Subscription calls are admitted during periods of light traffic. Subscription calls are (or are not) admitted during periods of heavy traffic.

#### **Casual Fixed Time Calls.**

Casual fixed time calls are (or are not) admitted.

#### **Telephotograph Transmission.**

Telephotograph transmission is (or is not) admitted.

#### **Avis d'appel and Telephonic Préavis.**

Avis d'appel calls are (or are not) admitted. Calls with préavis are (or are not) admitted.

Express calls with avis d'appel are (or are not) admitted. The indivisible surcharge, outside the boundaries of the tax-free area, is fixed at.....gold francs for avis d'appel to the destination of (the first country in alphabetical order) and at.....for avis d'appel to the destination of.....(the other country).

#### **Bourse Calls.**

Calls intended for a Bourse bureau are (or are not) subject to a surcharge, equal to the charge for a préavis.

#### **Requests for Information.**

Requests for information are (or are not) admitted.

#### **Tariffs.**

1. Zones.—For the determination of terminal charges : The territory of (first terminal country in alphabetical order) is divided into.....zones, or has only one zone.

The territory of (second country in alphabetical order) is divided into.....zones.

2. Limit of zones :

(first country in alphabetical order).

The first zone comprises :

Indicate as the case may be { The departments (or provinces or geographical divisions) as follows : (list them in alphabetical order) ;  
or  
the networks to the west (north, south or east) of a line to the east (north, south or west) of the following towns (list in geographical order, starting from a point on a definite frontier) ;  
or  
the networks south (or north) of.....degree latitude or east (or west) of.....degree longitude ;  
or  
to the east (or west) of the meridian of.....

The second zone comprises :

(second terminal country in alphabetical order).

The first zone comprises :

The second zone comprises :

### 3. Unit Charge.

The amount of unit charge for each connection and the amount payable to each Administration or operating company are indicated in the following table :—

Connection between	Unit Charge	Part for Country A.	Part for Country B.	Part for First Transit Country.	Part for Second Transit Country.	Part for Third Transit Country.
Networks whose crowfly distance apart is not greater than.....km. ....						
Networks whose crowfly distance exceeds .....km, but does not exceed.....km						
Country A, } Country B, 1st Zone ...						
1st zone, } " 2nd " ...						
and } " 3rd " ...						
Country A, } Country B, 1st Zone ...						
2nd zone, } " 2nd " ...						
and } " 3rd " ...						

### 4. Periods for Charge.

The hours of light traffic are the following : 7 p.m. to 8 a.m. (legal time of the originating country). For subscription calls the originating country is that in which the subscription has been paid.

During the period of light traffic the charge applicable to an ordinary three-minute call is fixed at three-fifths of the unit charge.

### 5. Method of Application of Charges.

(a) Between neighbouring countries. By connections between neighbouring frontier networks in which the charge is made by indivisible periods of three minutes is meant connections between networks whose crow-fly distance apart does not exceed . . . . kilometres.

(b) The facilities, foreseen in the C.C.I.F. Recommendation No. 25, entitled : " Modifications to Demands for Calls at the Request of the Caller," are (or are not) admitted.

(c) The provisions of paragraph 200 of the RTf (Article 31, §7) and of C.C.I.F. recommendation No. 53 entitled : " No reply from the calling or called subscriber " providing in the event of no reply from a calling or called subscriber, an appropriate charge equal to that applied in the case of a refusal, are (or are not) admitted.

## RECOMMENDATION No. 8.

### Opening of New Services—Publicity Calls.

*The International Telephone Consultative Committee—*

*Considering :—*

That it is important that subscribers should not only be informed of the opening of new telephone services but should also have an opportunity of ascertaining that the audibility is satisfactory on new or improved circuits.

*Unanimously recommends :—*

1. That Administrations or operating companies interested consult together in order to determine the conditions on which publicity calls shall be allowed during one month after the date of the inauguration of new telephone channels, or of existing circuits which have been improved for audibility (placed in cable, made into direct circuits, etc.).

2. That publicity calls shall be admitted, free of charge, during a period not normally exceeding six minutes and, for preference, for the benefit of representatives of organisations which are likely to inform users of the new facilities offered to the public.

3. That publicity calls shall not be offered if the audibility on the circuit concerned is not all that could be desired, or else where the load on such a circuit will not permit an increase of important traffic.

## RECOMMENDATION No. 9.

### Method of indicating to the Exchanges Normal and Auxiliary Routes.

*The International Consultative Committee—*

*Considering :—*

On the one hand, paragraphs 20–30 of the RTf (Article 3, § 3) specifies the determination of the route or routes to be employed when service is to be opened.

On the other hand, that the actual development of the means for international connections usually permits the use of several routes, and that it is desirable that there should be no hesitation in the choice of routes on the part of the services concerned,

*Unanimously recommends :—*

That the Administrations and operating companies should use the form given below to indicate to the important exchanges of their respective countries, the international relations which are available for those exchanges.

List of telephone relations authorised between . . . . (name of exchange) and . . . . (name of foreign exchange).

Names of Principal Exchanges of (name of foreign country).	Zone	Charge.	Normal Route.	Auxiliary Route.

## RECOMMENDATION No. 10.

### Emergency Lines.

*The International Telephone Consultative Committee—*

*Considering :—*

That it is desirable to take steps so that, in case of interruption or breakdown of an international channel, the traffic normally carried by that channel may be maintained [Para. 31 of the RTf (Article 3, § 3)] ;

That the use of emergency lines in exceptional cases should not modify the charges for calls,

*Unanimously recommends :—*

1. That the Administrations and operating companies concerned should come to an understanding as to the line or lines to be used as emergency lines in case of interruption or breakdown of the normal service, and that lines should be regarded as emergency lines only when they cross countries not normally used ;

The calling terminal exchange after agreement with the other terminal exchange should decide upon the emergency line to be used in the event of a breakdown of the normal and auxiliary lines.

2. That the list of such lines should be revised each year at the Plenary Session of the C.C.I.F.

Modifications or additions to the list of emergency lines will be notified to the S.G. of the C.C.I.F. who, in turn will notify the Administrations and operating companies.

3. That the rates to be charged when these lines are utilised should be the same as for normal lines ;

4. That the rates allotted to each Administration or operating company should provisionally be divided as follows :—

Considering the normal route the total rate is obtained by adding the rates appertaining to the first zone in each terminating country and, where necessary, to parts of the countries traversed.\* The total rate is then divided between the respective Administrations in the following manner :—

Each terminating Administration or operating company receives a proportional part corresponding to its share of the first zone with consideration of the emergency line.

Each transit Administration or operating company receives a part of the rates calculated as follows :—

#### Case 1.

When the emergency line uses a direct line crossing its territory, the Administration or operating company concerned will receive a payment based upon the normal transit charge for the circuit used (the normal transit charge calculated on the crow-fly distance between the points of entry and exit of the circuit), plus 1 Gold Franc.

#### Case 2.

When the emergency line does not use a direct line crossing the territory it is necessary to consider two possibilities :—

(a) When a transit charge has already been established for the same route as that of the emergency line, with a transit exchange on the territory served by the Administration or operating company concerned, this Administration or operating company will receive a payment proportional to its transit charge (the transit charge already includes 1 Gold Franc).

(b) When a transit charge has not been established for the same route as that of the emergency line, with a transit exchange on the territory served by the Administration or operating company concerned, the latter receives a payment proportional to a hypothetical transit charge calculated from the sum of the crow-fly lengths of the circuits used for the emergency line and increased by 1 Gold Franc.

**Note.**—The hypothetical transit charge is the same whether the transit exchange actually takes part in the establishment of the emergency line or whether a provisional direct circuit is used.

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\* It is understood that the amount of the terminal charge beyond the first zone charge is still payable to the terminal Administration concerned.

5. That the Administrations and operating companies give instructions with regard to the constitution of the direct emergency lines when the network layout allows it, and when impossible the head of the terminal exchange will endeavour to deal with the traffic in such a manner that the maximum waiting time laid down by the C.C.I.F. (Recommendation No. 3), is not exceeded.

6. If, during a complete month, less than twenty minutes conversation in both directions takes place on an emergency line, such traffic is considered as having taken place over a normal line for the purpose of accounting in connection with international telephone accounts.

If the number of minutes of paid conversation over an emergency line amounts to 20 or more, all the time in minutes is dealt with in the usual accounting methods.

#### **Example of Use of an Emergency Line.**

Considering the line Belgium—Hungary, the normal line is made up of the circuits Brussels—Vienna, Vienna—Budapest.

In case of breakdown of this normal route, an emergency line is used made up, for example, of the circuits Brussels—Berlin and Berlin—Budapest. The charge is divided in a proportion based on the following hypothetical charges :—

(a) **Belgium.** A portion for the terminating section of the Belgian first zone for the connection Belgium—Germany (1 fr. 50).

(b) **Hungary.** A portion for the terminating Hungarian Section for the connection Hungary—Germany (2 francs).

(c) **Germany.** A portion for the German transit section which is calculated as shown below, since there is no transit charge in force for Belgium—Czechoslovakia via Berlin :—

The terminal charge for the connection Brussels—Berlin (4 fr. 50) and the terminal charge for the connection Berlin—Budapest (2 fr. 10) are added together. From this total is subtracted twice the operating charge for a terminal station (0 fr. 80  $\times$  2 = 1 fr. 60). To this figure is added 1 Gold Franc representing the operating charge of the actual or hypothetical transit exchange (Berlin).

(d) **Czechoslovakia.** A portion for the Czechoslovakian transit charge which is established for the connection Berlin—Budapest (2 fr. 40) increased by 1 Gold Franc being the operating cost for a hypothetical transit exchange.

**Notes.—1.** When several normal lines via different transit countries exist between any two specified countries, the above arrangement is not applicable, and the Administrations and operating companies make a mutual agreement among themselves.

**2.** The amounts in brackets in the above example of the method of using an emergency line (especially the figure of 0.80 Gold Francs relative to the terminal operating charge) are given merely as an indication. Administrations and operating companies concerned in any particular connections have full liberty to fix both the charge for a normal line and the charge applicable to use of an emergency line.

### **RECOMMENDATION No. 11.**

#### **Emergency Line extending a Radio-telephone Link.**

*The International Telephone Consultative Committee—*

*Considering :—*

That when, following on the breakdown of the normal land line extending a radio telephone circuit it becomes necessary to make use of an emergency land line and the interruption which creates this necessity cannot be attributed in any way to the radio telephone circuit nor to the Administration or company which operates it,

*Unanimously recommends :—*

That when, following on the breakdown of the normal land line extending a radio telephone circuit, it becomes necessary to use an emergency land line, the division of the total charge relative to the use of the land line between the radio station and the terminal exchange should be carried out in accordance with the provisions of Recommendation No. 10.



## RECOMMENDATION No. 12.

### Telephone Directories.

*The International Consultative Committee—*

*Considering :—*

That it is advisable to facilitate the sale, to subscribers of each country, of telephone directories of other countries, and to provide facilities for their use by subscribers, Administrations and operating companies [Paras. 47 and 48 RTf (Art. 8)];

That in accordance with the Telephone Regulations annexed to the International Telecommunication Convention, Madrid 1932 [Para. 44 of the RTf (Article 7, § 1)] subscribers and public offices must be classified according to districts,

*Unanimously recommends :—*

1. That the Administrations and operating companies conform to the following rules (Article 8 of the RTf.) for furnishing directories to users: Subscribers desiring to have a foreign telephone directory should address their enquiry to the Administration or operating company of their own country; the latter will place the order with the foreign Administration or operating company, which will then despatch the directories to the Administration or operating company which has ordered them, giving the price in gold francs (the retail price plus postage). The home Administration or operating company will then deliver the directories to its subscribers against payment. At the end of each year, each Administration which has supplied directories to another Administration will send in a special account (independent of the account for telephone conversations) showing the amount due. This account must not be included in the quarterly telephone call account.

2. That in compiling telephone directories, it is advisable to act in accordance with the following rules :—

(a) Subscribers and call offices being classified by districts, the directory should contain an index of all the districts mentioned in the volume.

(b) The classification of names for each district is always arranged alphabetically, and when several subscribers have the same surname the classification shall be in accordance with the alphabetical order of their Christian names or initials.

(c) It is desirable to emphasize in some way, such as printing them on the cover of the directory, the telephone numbers of the police and fire services, or, should these have no special number, to indicate clearly and plainly how they can be obtained quickly on the telephone.

(d) It is desirable, in the interest of international telephone service that the directories, especially those which are supplied to other Administrations or operating companies, should be printed in Roman characters, especially the names and addresses of the subscribers.

(e) It would be useful if directories published in any language other than German, English or French, and which are sent to other Administrations and operating companies for official use, could contain a translation, in one of the three languages mentioned above, of the instructions for the use of the directory.

(f) Seeing that Administrations and operating companies already issue, for the benefit of subscribers using the international telephone service, special brochures giving details of this, it is sufficient to include in the general information appearing at the commencement of the directory a list of the international telephone services available together with a list showing the charges for calls to the principal foreign towns.

## RECOMMENDATION No. 13.

### Publication of Booklets giving the International Connections Authorised, the Facilities Offered, and the Corresponding Tariffs.

*The International Telephone Consultative Committee—*

*Considering :—*

That it is desirable to bring to the notice of the public the facilities for international telephone service,

*Unanimously recommends :—*

(a) That Telephone Administrations and operating companies should publish a booklet showing the authorised international connections, the facilities offered for each of these connections and the corresponding tariffs. In order to encourage the subscribers to read and take care of the booklet it would be better to issue it in a suitable form, which may vary in each country, so as to be adaptable to the particular temperament of the people.\* These booklets should not contain any advertising matter.

It would be good if the Chambers of Commerce of the various countries would recommend their members to make use of these booklets which have been specially prepared for their use by the Administrations and operating companies in order to render the international telephone service easier for them, and it is especially desirable that these booklets are thoroughly familiar to operators of private switchboards.

(b) That the Administrations and operating companies should receive through the General Secretariat of the C.C.I.F. one copy of each booklet already in existence, or else a copy of each booklet differing from previous ones by an important change in form.

(c) That in order to facilitate the use of these booklets by Administrations and operating companies they should be arranged on the following lines :—

#### **I. Introduction.**

- A. First a map, indicating by means of colours or hatching, the countries with which telephone connection is available to the public, and by arrows the existence of direct circuits ; another means of giving these indications would be by the use of two distinct maps.
- B. An introduction indicating the general position of international telephony with respect to the country considered, calling attention to the high quality of the service and the advantages to commercial and industrial firms of its use.
- C. A table showing the time in the various countries compared with that of the country issuing the booklet, the hour of noon in the latter being taken as a base.
- D. An index, permitting quick reference to the general information as well as to the detailed particulars of the countries included.
- E. The text of the booklet will follow and will be divided into two parts covering European services and services outside Europe respectively.

#### **II. Part concerning European Service.**

##### **Chapter I. Method of booking a call.**

- 1. Indication of the town required, followed, when necessary, by the name of the country.
- 2. Indication of the station called.
- 3. Designation of the station calling.

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\* In certain countries where booklets of this kind have been published, the Administrations or operating companies have considered it preferable, instead of distributing them by post, to have them delivered by agents of the Administrations or operating companies, who can give the subscribers any additional information that they may require.

4. Class of conversation. Method of charging. Definition of the unit charge. Limited duration of calls. Fixing the chargeable time of a call. Busy and light traffic periods.
- Chapter II. Various classes of calls, urgent, lightning, bourse, casual fixed time calls, calls by subscription, calls with avis d'appel or préavis.
- Chapter III. (a) Various facilities, valid duration of a booking, cancellation, refusal, deferred calls, modification of a call already booked, requests for information, supply of foreign directories, etc.
- (b) System of spelling used in the international service.
- Chapter IV. Zones and tariffs for each country in alphabetical order. The above indications may be given by maps, if desired.
- (See below, as an example, the tables giving particulars of the connections between Belgium and Germany, and Belgium and France) (Appendices 1 and 2).

### III. Part covering Services outside Europe.

- Chapter I. Method of booking a call.
1. Indication of the town required, followed, when necessary, by the name of the country.
  2. Designation of the station called, or the full address of the person called.
  3. Designation of the station calling.
  4. Approximate time at which the caller desires the conversation.
- Method of charging—Definition of the unit charge—Limit of the length of the call—How the chargeable portion of the call is determined (the period of defective audition being deducted from the total time the two persons are in communication).
- Chapter II. Various classes of calls (indicate the classes of call allowed in the European service which are excluded from the service outside Europe).
- Chapter III. Zones and tariffs for each country arranged in alphabetical order. Included in these are ships at sea. These indications may, if required, be given by means of maps.

The booklet should have a few blank leaves at the end for the use of subscribers, in noting their most frequently called addresses and telephone numbers.

**Note.**—Some Administrations and operating companies issue this booklet in loose-leaf form, which facilitates its being kept up to date.

# APPENDIX 1.

Table giving details of the connections between Belgium and Germany.

## GERMANY.

The German network is divided into twelve zones formed by circles described with a radius of 100, 200, etc., kilometres from Aix-la-Chapelle, as a centre.

All requests for information should be addressed to the central exchange.

Tariffs for day 8-19 hours, and night 19-8 hours.

GERMANY. Zones and Principal Towns.	BELGIUM. Networks in the provinces of :—					
	Liège, Limburg Luxembourg Namur.		Antwerp, Brabant Hainaut Eastern Flanders.		Western Flanders.	
	Day.	Night.	Day.	Night.	Day.	Night.
	Fr.	Fr.	Fr.	Fr.	Fr.	Fr.
1. Aix-la-Chapelle, Cologne, Duisburg, Düsseldorf, Essen... ..	16.80	10.10	25.20	15.15	29.40	17.65
2. Bochum, Coblenz, Dortmund, Frankfurt-a-Main, Mainz, Wiesbaden ... ..	25.20	15.15	29.40	17.65	33.60	20.20
3. Karlsruhe, Cassel, Darmstadt, Mannheim, Würzburg ... ..	29.40	17.65	33.60	20.20	37.80	22.70
4. Koburg, Hamburg, Hanover, Nürnberg, Stuttgart, Weimar ... ..	33.60	20.20	37.80	22.70	42.00	25.20
5. Kiel, Magdeburg, Munich ... ..	37.80	22.70	42.00	25.20	46.20	27.75
6. Berlin, Dresden ... ..	42.00	25.20	46.20	27.75	50.40	30.25
7. Stettin ... ..	46.20	27.75	50.40	30.25	54.60	32.80
8. Breslau ... ..	50.40	30.25	54.60	32.80	58.80	35.30
9. Lauenburg (Pomm.) ... ..	54.60	32.80	58.80	35.30	63.00	37.80
10. Elbing ... ..	58.80	35.30	63.00	37.80	67.20	40.35
11. Königsberg ... ..	63.00	37.80	67.20	40.35	71.40	42.85
12. Tilsit ... ..	67.20	40.35	71.40	42.85	75.60	45.40
Frontier Calls. { 15 Km maximum ... ..	4.20	2.55	—	—	—	—
{ from 15 Km to 30 Km ... ..	7.00	4.20	—	—	—	—

# APPENDIX 2.

Table giving details of connections between Belgium and France.

## FRANCE.

The French network is divided into four zones, each of which includes a number of departments as shown below :—

1st zone :—Aisne, Ardennes, Meurthe-et-Moselle, Meuse, Moselle, Nord, Pas-de-Calais.

2nd zone :—Aube, Eure, Marne, Marne (Haute-), Oise, Rhin (Bas), Rhin (Haut), Saône (Haute-), Territoire de Belfort, Seine, Seine-et-Oise, Seine-et-Marne, Seine-Inférieure, Somme, Vosges.

3rd zone :—Ain, Allier, Calvados, Cher, Côte d'Or, Creuse, Doubs, Eure-et-Loir, Indre, Indre-et-Loire, Ile-et-Vilaine, Jura, Loire, Loiret, Loir-et-Cher, Maine-et-Loire, Manche, Mayenne, Nièvre, Orne, Puy-de-Dôme, Rhône, Saône-et-Loire, Sarthe, Vienne, Yonne.

4th zone :—Other departments not included in the first three zones.

FRANCE. Zones and Principal Towns.	BELGIUM. Networks in the provinces of :—			
	Flanders West Hainaut, Namur Luxembourg*		Flanders East Antwerp, Brabant Liège†, Limburg.	
	Day.	Night.	Day.	Night.
	Fr.	Fr.	Fr.	Fr.
1. Calais, Arras, Lille, Valenciennes, Maubeuge, Saint-Quentin, Verdun, Nancy, Metz ... ..	10.50	6.30	14.00	8.40
2. Amiens, Rouen, Paris, Reims, Strasbourg, Mulhouse, Belfort... ..	15.75	9.45	19.25	11.55
3. Cherbourg, Caen, Orléans, Tours, Clermont-Ferrand, Lyon, St-Étienne, Dijon ... ..	26.25	15.75	29.75	17.85
4. Brest, Biarritz, Bordeaux, Toulouse, Marseille, Nice, Chambéry ... ..	33.25	19.95	36.75	22.05
Frontier Calls { 15 Km maximum ... ..	3.50	2.10	—	—
{ from 15-30 Km ... ..	5.25	3.15	5.25	3.15

\* Also the networks of : Amblève, Bullange, Manderfeld.

† Excluding the networks of Reuland and Saint-Vith.

## B. VARIOUS CLASSES OF CALLS AND FACILITIES TO BE OFFERED TO THE PUBLIC

### RECOMMENDATION No. 14.

#### Subscription Calls.

*The International Consultative Committee—*

*Considering :—*

Paragraph 169 of the RTf (Article 30, § 5),

*Unanimously recommends :—*

1. That during heavy traffic periods, except during the hours of maximum traffic (to be determined by the heads of the terminal exchanges concerned), subscription calls should be allowed without a time limitation at the ordinary call rates\* on one of the two conditions specified below :—

(a) That circuits are available.

(b) That the average delay at the time fixed for the call does not exceed, or is not likely to exceed by reason of the granting of the contract, the following :—

15 minutes for circuits under 500 km.

30 " " " between 500 and 1000 km.

45 " " " exceeding 1000 km.

### RECOMMENDATION No. 15.

#### Agreement to be concluded between Exchanges and Subscribers for the exchange of Contract Calls.

*The International Telephone Consultative Committee—*

*Considering :—*

That the legal or administrative clauses which accompany a subscription contract can differ according to the country, but that it is necessary to include in all contracts of this kind a certain amount of indispensable information to give the contract its corresponding legal status ;

*Unanimously recommends :—*

That the Administrations, in preparing the subscription contracts, should be guided by the following typical form.

*The International Telephone Consultative Committee—*

*Considering :—*

That, in accordance with the Regulations of RTf (para. 58, article 12, § 5), the times and duration of subscription calls, after having been fixed by agreement between the offices interested, are confirmed in writing ;

*Unanimously recommends :—*

1. That the arrangements in connection with the admission of calls by subscription should be made by telephone during the hours of light traffic between the terminal exchanges.

2. That the written confirmation should be drawn up in accordance with the following formula :

Confirmation of the arrangement relating to subscription calls made the.....19.....

A call of.....minutes must be established every day, Sundays and public holidays excluded,† at.....o'clock (legal time of.....‡ between subscriber No.....at.....and subscriber No.....at.....on and after..... 19.....

For confirmation

.....exchange.....19.....

Signed.....

\* See recommendation No. 45 "Charges for Subscription Calls."

† The words "Sundays and public holidays" should be struck out when necessary.

‡ Name of the country where the subscription is made.

3. That this confirmation should be sent by the originating terminal exchange to the other interested terminal exchanges, the latter communicating, as the case may be, with the other exchanges in their country which are interested in the establishment of the communication.

### Typical Form of Subscription Contract (Front).

The Telephone Administration or operating company of.....(country of origin).  
Subscription for International Telephone Service.

The undersigned.....residing at.....agrees to pay until further notice, according to the conditions set out overleaf, the monthly subscription detailed below, beginning from.....

Network and Telephone Number.		Time at which the connection is to be established.*	Duration of Call.	Is the connection to be established on Sundays and public holidays?	Monthly Tariff.
Caller.	Called.				
Made at.....the.....					

### Typical Form of Subscription Contract (Back).

#### General Conditions of the Subscription.

ART. I.—The subscription calls take place daily between the same stations at the same time, as agreed in advance, and for one month at least.

The duration of the subscription is for at least one month ; it may be prolonged from month to month, by mutual consent.

The subscription can be cancelled after the first month by either party by notice given eight days before the expiration of the current month of the subscription.

ART. II.—The subscription calls must exclusively concern the personal business of the correspondents or that of their establishments.

ART. III.—The minimum duration of a subscription call is three minutes. Calls of a greater duration than six minutes can be allowed if the normal traffic on the circuits used permits this.

ART. IV.—Subscription calls are subject to the following charges :—

(a) During the period of light traffic † : half the unit rate for ordinary calls of the same duration during the busy hours.

(b) During other periods‡ : at double the unit rate (At the unit rate—at  $\frac{1}{3}$  the unit rate) for the busy period.

\* Legal time of the country where the subscription is made.

† From.....(time) to.....(time).

‡ From.....(time) to.....(time)

The amount of subscription is calculated on a mean duration of 30 days. However, the monthly rate can be calculated on the basis of 25 days should the subscriber give up the use of his subscription on Sundays and public holidays corresponding to Sundays in his own country.

The amount of subscription is payable in advance.

ART. V.—The subscription can be contracted from any date, but the monthly period only counts from the first of each month. The amount of subscription corresponding to the first monthly period may be increased, if necessary, by the part of the subscription corresponding to the period between the date of its coming into force and that of the commencement of the monthly period.

ART. VI.—The connection is to be officially established between the two stations indicated on the contract at the exact time agreed upon, unless another conversation or a demand for an urgent Government call or a lightning call is in progress (or where urgent Government calls are not admitted, an ordinary Government call). Otherwise the call is put through as soon as possible on the first circuit available at the specified time.

The subscription call connection will be broken down as soon as the caller indicates that the conversation is finished, even before the expiration of the contract period. At the expiration of the contract period the connection will be broken down if the caller has not requested an extension of time. If the caller requests an extension this may be granted up to 12 minutes in all, or 6 minutes if a superior class of call is waiting or if the network is very busy or suffering from a break-down. The extension of time is charged per minute at the rate applicable to subscription calls for that particular period.

ART. VII.—No compensation should be given and no refund made if, by the act of the subscribers, the call has not taken place or has not had its prescribed duration.

A subscription call which for some reason attributable to the telephone service has not taken place or has not had its full duration of time, is, if possible, replaced or compensated for, by a call of equal length to the unexpired portion of the time, and before the end of the same charge period. If it cannot be replaced or compensated for in the same charge period, only the charge for the time actually used shall be entered on the accounts. If this time does not amount to three minutes, no charge is made. To calculate this period the charge for the complete subscription call period is taken as a base, and this basic charge is considered as equal to  $1/25$  or  $1/30$  of the total monthly charge for the subscription, depending upon the month.

ART. VIII.—The subscriber who has arranged for a subscription call contract may, as an exception and by making a written request at least 24 hours in advance, hold his conversation from some other station than than specified in the contract provided that it is in the same exchange area.

## RECOMMENDATION No. 16.

### Calls by Subscription for Periods of Less than One Month.

*The International Telephone Consultative Committee—*

*Considering:—*

That telephone tariffs must be fixed according to the cost of the service and not according to the status of the users,

That permitting calls by subscription for a period of under one month is likely to lead to a development of the traffic,

That it is desirable to maintain the minimum duration of a month for existing contracts.

*Unanimously recommends:—*

That calls by subscription may be arranged by special agreement between the Administrations and operating companies concerned, for one or more complete periods of seven consecutive days commencing at any date and not renewable by tacit consent.

These calls are subject to the general regulations concerning subscription calls with the exception of those concerning agreed rebates to subscribers who do not require the calls on Sundays and public holidays. [Para. 172 of the RTf (Art. 30, §7).]

## RECOMMENDATION No. 17.

### Occasional Calls at Fixed Time.

*The International Telephone Consultative Committee—*

*Considering—*

That it is desirable to avoid general service difficulties due to occasional calls at fixed time,

That, on the other hand, it is desirable to increase as much as possible the use of the circuits during the period of light traffic without leading to an increase in personnel,

That long conversations increase the financial return for the circuits,

*Unanimously recommends:—*

That occasional calls at fixed time should be admitted and that the regulations detailed in Paragraphs 61 to 63, 173, 174, 189, 190, 196 and 197 of the RTf (Articles 13, 30, §§ 8 and 9; and 31, §§ 5 and 7) should be provisionally completed as follows:—

1. Conditions of admission.—Occasional calls at fixed time should be booked at least half an hour in advance. Nevertheless for those calls necessitating important modifications of lines or installations it may be stipulated that longer notice should be given, for instance at least one hour.

If several calls at fixed time are requested on one circuit at the same time, they will be established in the order in which the requests were received at the exchange.

Occasional long-time calls at a fixed time should be accepted during the light traffic period if no inconvenience to the general service would result. Administrations and operating companies should make their own arrangements among themselves to take care of long occasional calls at a fixed time during the busy period, since it does not appear to be desirable to suggest any regulations for this at the present time.

2. Tariffs.—Occasional calls at a fixed time during the light traffic period and for a duration of at least one hour are charged at half ( $\frac{1}{2}$ ) the tariff applicable to an ordinary conversation of the same length during the busy period; no surtax is charged in this case.

Occasional calls at a fixed time combined with "préavis" or "avis d'appel" should be admitted; in this case the charge applicable to occasional calls at a fixed time (either busy period rate or light traffic period rate) should be applied together with the normal charge for "préavis" or "avis d'appel," but the special charge (charge for one minute's ordinary conversation) for occasional calls at a fixed time, is not made.

When the préavis accompanying the booking of an occasional call at a fixed time is not followed by a conversation, the caller will pay only the additional préavis charge, that is,—one minute's ordinary conversation during the tariff period when the préavis was transmitted.

When the caller who has booked an occasional call at a fixed time together with préavis cancels his call after transmission of the préavis has been begun, the only charge will be that for the préavis.

## RECOMMENDATION No. 18.

### Calls with Avis d'appel and Calls with Préavis.

*The International Telephone Consultative Committee—*

*Considering:—*

That the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932, do not contain sufficient detailed information concerning the establishment of calls with préavis or avis d'appel.



*Unanimously recommends :—*

That the regulations of the RTf concerning calls with avis d'appel and calls with préavis should be completed as follows :—

### 1. Calls with Avis d'Appel.

§ 1. (1) The avis d'appel defined in paragraph 86 of the RTf (Article 18, § 1) are delivered to the address concerned in the same way as a telegram. If necessary the "express" fee [paragraph 179 of the RTf (Article 30 § 11)] is charged to the caller.

(2) When the caller at the time of booking a call with avis d'appel, states that the person called lives outside the free delivery area and that the caller will pay the "express delivery" charge, the avis d'appel is preceded by the words "express paid."

When the caller is unable to say whether or no the person called lives within the free distribution area for telegrams, he is warned by his exchange that he may have to pay the express fee. He is also informed that while the Administrations and operating companies will do their best to reach the person called in good time, they are unable to make any guarantees as to this when the person called lives beyond the free distribution area for telegrams.

When an exchange receives an "avis d'appel" not bearing the words "express paid" and the addressee concerned does not live in the free distribution area for telegrams, it informs the originating exchange of this fact. If the caller refuses to pay the express fee, the call is cancelled, but the special charge for "avis d'appel" is made.

§ 2. An "avis d'appel" contains only the following information :—

1. Name of caller, and if necessary, his telephone number.
2. The name of the called party and, if necessary, his substitute and their full address.
3. If necessary, the time after which the call should be cancelled or the period during which the call must not be made.

These details are transmitted as quickly as possible from exchange to exchange\* and are prefixed by the words "avis d'appel"† The exchange of destination records them on forms for delivery to the called party.

The subscriber originating a call with avis d'appel may once only, if he has not been advised by his exchange to take the call, modify the particulars of his demand (without, however, being able to change the terminal network)—or to specify that the call be not established during a definite period or to advise that the demand be passed after a definite time. This facility is free of charge except in the case where the modification requires a second message to be sent. In this case, the special charge for avis d'appel and, if necessary, the messenger surcharge, are doubled. The person booking a call with avis d'appel may, after the avis d'appel has been transmitted, modify his call and make it an ordinary call to the same network. His call keeps its priority and the caller pays the fee for the avis d'appel.

§ 3. Calls with avis d'appel are only established when the controlling exchange (terminal exchange, originating end, in case of direct calls, transit exchange in the case of transit calls) has been informed that the called party is ready to receive the call.

§ 4. To establish a call with avis d'appel the procedure is as follows :—

(a) The controlling operator should in transmitting the avis d'appel to the corresponding exchange give the approximate time at which the call should be established. This indication is sent to the receiving terminal exchanges.

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\* All other service indications concerning a call with "avis d'appel" are similarly handled.

† Or by the words "avis d'appel" express paid" (see section 1 above).

(b) As soon as the called party (or his substitute) appears at the call office or announces that he is ready to receive the call at a subscriber's station which he indicates, the terminal exchange immediately advises the controlling exchange. The latter establishes the call in its turn.\*

(c) When the terminal exchange is informed that the called party (or his substitute) can be reached at a public call office or at a subscriber's station of another network, the caller is informed of this and the original call is cancelled. If the caller asks for a call in another network it is treated as a new application.

If the terminal exchange is informed that the called party (or his substitute) cannot or does not wish to receive the call, the caller is informed at once and the call is cancelled.

(d) If the terminal exchange is informed that the called party (or his substitute) cannot answer the call at the approximate time arranged, the caller should be immediately advised. As soon as the terminal exchange can give the time for which the called party (or his substitute) will be able to receive the call, the caller will be notified.

If at the time at which the called party is ready to receive the call the turn for setting up this call has not yet arrived, the call shall retain its normal sequence.

If its turn has already passed, the request shall take first place in the sequence of its category.

§ 5. If, after calling at the public call office, the called party (or his substitute) makes known before the warning call (see § 6) that he can await the call no longer, the calling party is advised and the demand for the call is cancelled.

§ 6. At the commencement of the conversation which immediately precedes the call with avis d'appel the respective terminal exchanges advise the caller and the person called that the avis d'appel call will be established in a few minutes and ask them to hold themselves in readiness to take the call (warning call). At the actual call the called exchange reminds the called station of the name of the person required, after which the call commences. In addition to the fee for the avis d'appel, the charge for the call is made in accordance with the tariff for calls without avis d'appel [paragraphs 137 to 200 of the RTf (Articles 28, 29, 30 and 31)].

§ 7. The fee for avis d'appel and the express delivery fee are not charged in the two following instances :—

(a) When, due to a fault in the telephone service, the avis d'appel has not been correctly transmitted.

(b) When, after the avis d'appel has been transmitted, the call has not taken place, due to the fault of the telephone service.

If the caller cancels a call with avis d'appel after the transmission of the latter has been commenced, the called office is informed of the cancellation. This cancellation is notified to the person called if he is present at the call office or upon his arrival later.

## 2. Calls with Préavis.

§ 1. (1) A préavis contains only the following details :—

1. Name of the caller, and, when necessary, his telephone number.

2. The correct designation of the called party† and, if necessary, his substitute or the supplementary station required. If no substitute is specified by the caller, he may specify an alternative station in the same network.

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\* When the call is to be received at a subscriber's station the arrangements relating to préavis will apply.

† A caller may specify as the "person called," a specified person, or an unspecified person speaking a certain language or one of two languages at a given telephone station.

3. Lastly, the time after which the call should be cancelled, or the period during which the call should not be established.

(2) This information should be sent as quickly as possible from exchange to exchange\* through to the terminal exchange and is preceded by the word "préavis." The caller's name or number (or both) will only be transmitted at the caller's request.

The caller originating a préavis may, if he has not been advised by his exchange to take the call, modify once only the particulars of his demands or the specified time—without, however, being able to change the terminal network. This facility is free of charge.

A person making a préavis call may, when he is informed that the person called cannot be reached at the number called, because this number does not exist or its line is out of order, transfer his préavis call to a call with avis d'appel to a destination in the same network ; this facility is without charge if the avis d'appel does not require a messenger to travel outside the free distribution area for telegrams ; if the latter is the case the caller is warned that he must pay the " express " fee.

§ 2. Calls with préavis are established in their proper sequence only if the controlling exchange (terminal exchange—originating end—in case of direct calls ; transit exchange in case of transit calls), has been informed that the called party is ready to receive the call.

§ 3. To establish a call with préavis, the procedure is as follows :—

(a) The controlling operator when transmitting the préavis to the terminal exchange must give the approximate time from which the call can be established.

(b) As soon as it has received the préavis, the terminal exchange should inquire whether the called party is ready to accept the call, and should at the same time state the approximate time at which the call will be made.

(c) If, on receipt of the préavis, the person at the called station declares that he is ready to answer the call, the terminal exchange should advise the controlling exchange immediately ; the controlling exchange will then establish the call in its proper sequence.

(d) If the terminal exchange is informed that the called person can be found at a different station of the same local network, the call is put through as if the application had been for that particular station.

If the terminal exchange is informed that the called person can be found at a certain station of another network, the caller is advised and the application for the original call is cancelled unless the caller decides to accept the call with the original station in spite of the absence of the called party. If the caller desires to hold the conversation with the person called at the station in the other network, the call remains valid but is modified accordingly. In this case: (a) If the préavis is followed by a conversation the fee for the préavis is calculated on the base of the tariff applicable to the effective conversation, (b) If the préavis is not followed by a conversation the fee for the préavis is calculated on the base of the higher tariff for the two connections (that of the first connection or that of the second connection to the network to which the call was transferred).

If the terminal exchange at the called end is informed that the person called cannot or will not take the call, the caller is advised as soon as possible and the call is cancelled unless the caller decides to accept the call with the number called in spite of the person called being absent.

(e) If the station called states that the person called will not be able to take the call at the time specified, this information is at once passed to the caller. Also when the station called, at the request of

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\* All other service indications for a préavis call are handled in a similar manner.

its terminal exchange, can indicate the time at which the person called can take the call, this time is notified to the caller.

If the station called cannot give any information as to the time when the person called can be reached, the terminal exchange at that end should enquire, at least once an hour (except during the night) as to the hour of his return. As soon as this information is obtained, the caller is at once advised.

(f) If at the commencement of the time specified as that after which the call will be made, the person called is ready to receive the call, and the latter's turn has not yet been reached, the call takes its normal sequence.

If the turn of the call has already passed, it shall take precedence over calls of the same category.

§ 4. If, after having advised that he is ready for the call, the person called states before the warning call (see §6) that he cannot wait any longer or that the call should be postponed, action is taken in accordance with § 3 (d), last paragraph, or with § 3 (e).

§ 5. In case of non-reply from the station called at the warning call, a fresh call is made a few minutes later ; if there is still no reply a third call is made half an hour later. If no reply is obtained to this, the caller is notified and if he still wishes to make the call, it remains valid for the period stated in paragraphs 85, 99 and 100 of the RTf (Article 17, § 3, and Article 21) ; during this waiting period the exchange at the called person's end of the line makes several attempts to call him. When a reply is obtained, the preceding rules are applied to the call.

§ 6. At the beginning of the call which immediately precedes the call with *préavis* the originating and terminating exchanges advise the calling and called stations respectively that the call with *préavis* can be established in a few minutes and that the persons interested should stand by to receive the call. If at this time the called station declares its readiness to take the call the lines of the subscribers concerned remain connected respectively to the originating and terminal exchanges (warning call); at the actual call the terminal exchange will remind the station called of the name of the person called and his telephone number, following which the call is put through in the ordinary way. In addition to the special charge for *préavis*, the charge applicable to the conversation is applied in accordance with the rules governing the charge for calls without *préavis* [paragraphs 137 to 200 of the RTf (Articles 28, 29, 30 and 31)].

§ 7. (1) If at the time of the warning call or at the time of the actual call the called station advises that it is prevented from accepting the call (because the person called cannot be reached for the moment) the call is cancelled ; the caller is informed accordingly and the *préavis* charge only is made, unless the caller wishes to accept the call in spite of the absence of the person called (in which case he is allowed to do so).

(2) The *préavis* charge is not made in the two following cases :—

- (a) When, due to the fault of the telephone service the *préavis* has not been correctly transmitted.
- (b) When, after reception of the *préavis*, the call cannot take place due to the telephone service.

If the caller cancels a call with *préavis* after the transmission of the *préavis* has been commenced, the called terminal exchange is informed of the cancellation and advises the called station, if the latter has received the *préavis*.

§ 8. In case of non-reply of the called or calling subscriber, the *préavis* charge only is made ; this charge is made even if the *préavis* has not reached the station called because the latter has not replied ; [paragraph 200 of the RTf which provides for this (Article 31, § 7) constitutes an optional regulation].

## RECOMMENDATION No. 19.

### Bourse Calls.

*The International Telephone Consultative Committee—*

*Considering :—*

That the regulations contained in the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932 [paragraphs 78 to 81, 182, 191, 199 (Article 16, Article 30, § 14, Article 31, § 5 (3) and Article 31, § 7 (4))] relative to Bourse Calls, that is to calls originating from or made to a Bourse in which exist call boxes available to all the members and staffed by the Telephone Administration or operating company of the country concerned and constituting the Bourse exchange, should be elaborated.

That, on the other hand, the Bourses containing call boxes accessible to all the members and not staffed by the Administration or operating company of the country concerned (Bourses with private exchanges) should be treated as subscribers,

*Unanimously recommends :—*

1. That in all institutions similar to Bourses (fairs, periodical exhibitions, etc.) the telephone installation should as far as possible be a private exchange, the calls originating from or destined for such institutions being submitted to the ordinary regulations governing international telephony ; the chargeable duration of a call commencing at the moment when the private exchange and its correspondent have answered [paragraphs 137 to 140 of the RTf (Article 28, §§ 1 to 4)] and the caller of such an institution receiving always, when he books his call, the advice to make it a *préavis* call.

2. That calls originating from or destined for a “ Bourse Exchange ” (call boxes accessible to all members and staffed by the Administration or operating company of the country concerned) should be provisionally treated as detailed in the guiding principles for the regulation of Bourse calls given below.

3. That in the future it is desirable to bring into line “ Bourse exchanges ” by applying the recommendations of the C.C.I.F. with regard to the exploitation of international circuits concerning the general conditions with which new Bourse exchanges should comply.

### Guiding Principles for the Regulation of Bourse Calls.

§ 1. (1) Calls originating from or destined for call offices situated in a Bourse, available for all the brokers but not operated by the Telephone Administration or operating company, are subject to the ordinary rules of the international telephone service.

(2) The Administrations and operating companies concerned should communicate to one another the official names of the “ Bourse Exchanges ” and, if they think it necessary, the days and times during which these “ Bourse Exchanges ” are in use.

§ 2 (1) For a request for a call originating at or destined for a “ Bourse Exchange ” the name of the Bourse and the name of the broker calling or called should be given.

Examples (a) Amsterdam Commercial Bourse—P. Jansen requests Paris Littré 2430.

(b) Paris Littré 1893 requests Amsterdam Commercial Bourse Dunlop & Co.

(c) Amsterdam Commercial Bourse—P. Jansen requests Paris Financial Bourse, Lebrun, Banque Nationale Crédit.

(2) Calls for a “ Bourse Exchange ” during the operating times of this exchange should be transmitted as rapidly as possible.

Outside this period the transmission should be made according to agreements between the exchanges concerned.

(3) After the receipt of a request the receiving " Bourse Exchange " should ascertain (by several attempts if necessary) if the broker called is present and should advise him that he has been called (avis préalable—warning call). If this person accepts the call he should be advised definitely when his turn arrives (avis définitif).

If the warning call has not reached the required broker after a reasonable time, or if he does not accept the call, the controlling exchange should be informed.

In the first case the establishment of the call should be put back ; in the second case the request for a call should be cancelled.

§ 3. (1) Before the beginning of the conversation preceding that with the " Bourse Exchange " the toll exchange should advise the " Bourse Exchange " that the call is about to be established. The " Bourse Exchange " should advise the broker, calling or called, as quickly as possible that his turn is about to arrive, and should indicate to him the call box to be used for his conversation.

(2) Before receiving the final advice (avis définitif) the broker can ask for the call to be established with another station of the same local network.

§ 4. (1) The charge for the conversation should be made from the moment that the call is given to the broker.

However, if the preceding conversation has lasted less than three minutes and if the broker is not present to take his call at the expiration of these three minutes, the charge only begins at the end of these three minutes.

(2) If the broker does not arrive to time or does not appear at all, the call will be held for him during three minutes from the time the charge commences. A caller, however, may request that a call be held during a maximum period of six minutes, paying the charge for the time the call has been held, with a minimum of three minutes.

§ 5. (1) A surtax amounting to one third of the unit charge and specified in paragraph 182 of the RTf (Article 30, § 14) is made for each call to a " Bourse Exchange " \* and forms part of the international accounts. When the call is refused at the moment of the warning call the surtax is made.

(2) When a call is refused at the moment of the actual call the charge for one minute's conversation at the ordinary busy period rate is applied only in the case of Bourse calls for which the originating country does not apply the surtax for Bourse calls [paragraph 199 of the RTf (Article 31, § 7)].

## RECOMMENDATION No. 20.

### Calls Paid by the Person Called.

*The International Telephone Consultative Committee—*

*Considering :—*

The necessity for the caller to pay for a call may sometimes tend to restrict the traffic,

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\* Bourse calls originating from a " Bourse Exchange " but not for a " Bourse Exchange " are not therefore liable for this surtax.

*And also considering :—*

That the necessity for exchanges to obtain the agreement of the person called inevitably leads to expense which should be recoverable

*Unanimously recommends :—*

That calls paid by the person called should be admitted by agreement between Administrations and operating companies. These calls should carry a surtax equal to that for calls with *préavis* (cost of one minute's ordinary conversation at the same charging period).

If the person called agrees to pay for the call, he must pay in addition to the charge for the call, a surtax equal to one minute's conversation.

The call is considered as having emanated from the receiving exchange, and the accounting is done by this exchange in place of the exchange actually originating the call.

If the person called refuses to pay for the call, the caller is charged the surtax equal to one minute's conversation.

## RECOMMENDATION No. 21.

### Requests for Information.

*The International Telephone Consultative Committee—*

*Unanimously recommends :—*

That the regulations of the RTf [paragraphs 91-94 and 181 (Articles 19 and 30, § 13)] should be detailed as follows :—

1. Each time a user makes a request to know :—

(a) whether a given person, designated by his name and other indications (such as his full address) is a telephone subscriber, or,

(b) the name of the person to whom a given telephone number in a specified telephone system is allotted.

The operator asks the person making the request for the information to book a call at the same time, if he wishes to speak to the person about whom he is seeking information. If a call is booked, the information is given without charge. If no call is made the request is considered as a "request for information" and is charged for. [See paragraph 181 of the RTf (Article 30, § 13)].

2. Requests for information are transmitted as quickly as possible from exchange to exchange. No through connection should be set up for transmitting these requests.

### Examples of "Requests for Information."

A. Request :—Paris Central 0999 asks if Mr. X....., Boulevard Anspach, 161, Brussels, is a telephone subscriber ?

Answer :—Reply for Paris Central 0999 :—Mr. X..... 26236 Brussels, or, Mr. X..... is not a subscriber, or, the name of Mr. X..... does not appear in the telephone directory.

B. Request :—Paris Central 0999 requests name and address of City 5396 London.

Answer :—Reply for Paris Central 0999 :—City 5396 is Green, H. R., Commission Agent, 3, Broadway, E.C.4., or, City 5396 does not appear in the telephone directory.

## RECOMMENDATION No. 22.

### Leasing International Lines, not comprising Submarine Sections, for Private Purposes.

#### 1. Conditions of Admission.

*The International Telephone Consultative Committee—*

*Considering :—*

That, on several routes, there are available circuits in international cables ;

That, though the leasing of circuits has not been allowed up to the present on international service, several Administrations have already had experience of leasing circuits on internal service ;

That several Administrations have already received requests to lease international telephone circuits for private purposes ;

That, consequently, it is necessary to consider the question of eventually leasing permanently international telephone lines so as to allow Administrations and operating companies to organise this new service on a suitable basis ;

That it is necessary, however, to avoid the leasing being of such a nature, as to cause any inconvenience in the general service or being able to permit misuse on the part of the subscribers who hire these circuits ;

*Unanimously recommends :—*

That Administrations and operating companies which permanently lease international telephone circuits should be guided provisionally by the following principles until it is possible to benefit by practical experience on this question :

1. International telephone lines on a given route should only be leased when the number of circuits serving that route allows such a disposal.

2. The leasing of an international telephone line having been agreed upon, the connections should be established once and for all so that the central exchanges need no longer interfere, but they must be able, technically, to control the conversations passed.

The stations so connected must not in any case be stations which are used habitually by the public. The conversations should concern exclusively personal matters of the subscribers or that of their businesses. The line must in no way be given over to a third person.

It is desirable that the leased circuits should terminate on the subscriber's premises in equipment, the use of which prevents the operation of the circuits for purposes other than those specified in the contract.

3. The lease should be made for at least a period of one year ; it should be renewed after that every three months by tacit agreement. Notice of cancellation must be given by either party one month prior to the termination of the current period of subscription.

4. The Administrations should reserve the right to recover the leased line in the interests of the general service, at the same time giving the required notice of cancellation, as mentioned in paragraph 3.

5. The subscription should be paid in advance and quarterly.

6. In the case of interruption due to the telephone service, the originating Administration should make a refund at the request of the subscriber. The refund should be fixed at as many times the three-hundredth part of the annual subscription as there were days of interruption. If the period of interruption is less than a day, no refund should be made ; the period from 9 a.m. to 3 p.m. in this case, should be regarded as a day.



## II. Rates.

*The International Telephone Consultative Committee—  
Considering :—*

That the leasing of an international telephone line gives to the lessees the possibility of obtaining at any moment a no-delay call, being equivalent therefore, to a lightning call, and confers upon lessees a very important privilege ;

That, however, it is necessary to take into account the fact that the operating services of the Administrations do not intervene in establishing the connections ;

*Unanimously recommends :—*

1. That the subscription should be equivalent to 120 units of charge of the same connection per day, assuming 300 days per year.

2. That in every case, even for frontier connections, the receipts should be included in the international accounts.

### RECOMMENDATION No. 23.

#### Conference Calls.

*The International Telephone Consultative Committee—  
Considering :—*

The information given by the different Administrations and operating companies on conference call service in their respective countries,

*Unanimously recommends :—*

That the principle of conference calls be retained ; but before allowing them in international service, it is necessary to determine the technical installations required for good transmission under all circumstances. With this object in view there should be considered :—

- (a) The case where the group of subscribers belongs to two networks only.
- (b) The case where the conference call concerns more than two networks.

**Note.**—The C.C.I. Recommendation, entitled : " Conditions to be satisfied by the equipment for Conference calls," contains guiding principles for establishing and supervising conference calls. See also Recommendation No. 44, " Rates for Conference Calls."

### RECOMMENDATION No. 24.

#### Calls demanded by Aeroplane Pilots in Cases of Forced Landings.

*The International Telephone Consultative Committee—  
Considering :—*

That, according to the terms of Article 36 of the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932, absolute priority is given to international telegrams relating to security of human life in marine or aerial navigation.

Similar priority seems justifiable in the case of international telephone calls asked for in cases of forced landings in aerial navigation.

That special guarantees should be enforced in order to prevent misuse.

*Unanimously recommends :—*

(1) That in the case of a forced landing the pilot (or his deputy) should be able, on production of his licence for public transport, to obtain priority for a telephone call to his base or with one of the aerodromes in the vicinity of the place of landing.

(2) That these calls should have priority over ordinary private calls, urgent private calls, and, in cases where urgent State calls are admitted, over ordinary State calls.

(3) That the calls so obtained in these circumstances should be announced by the words " Urgent avion " and that they should be rated at twice the ordinary rate for international calls where urgent private calls are allowed.

## RECOMMENDATION No. 25.

### Modifications to Demands for Calls at the Request of the Caller.

*The International Telephone Consultative Committee—*

*Considering :—*

That paragraphs 103 to 110 (Article 24, § 1) of the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932, specify the modifications which a caller may make to his demand providing he has not been called by his exchange to take the call, but do not detail how these modifications should be dealt with,

*Unanimously recommends :—*

That the provisions of Article 24 of the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932, should be interpreted as follows :—

1. (RTf, paragraph 104.) When the caller specifies that the call must not be established during a given period, if the turn of the call has not been reached at the beginning of this period, the time at the end of this period shall be considered as the registration time for the call.

2. (RTf, paragraph 105.) When the caller specifies that the call shall only be established after a given time on the same day, the registration time for the call is replaced by the new time indicated.

3. (RTf, paragraph 107.) When the caller changes his call from ordinary to urgent or inversely, the time of this request is considered as the new booking time for the call.

4. By extending paragraph 108 of the RTf, authorising the changing of a request for an ordinary call into a request for a call with *préavis* or *avis d'appel*, the person making a call with *avis d'appel* (or *préavis*) has the option, when the call with *avis d'appel* (or *préavis*) has been transmitted, of modifying his request to a call without *avis d'appel* (or *préavis*) to a station in the same network. His call keeps its turn and the caller pays the surtax for the *avis d'appel* (or *préavis*) when his exchange has commenced the transmission of the *avis d'appel* (or *préavis*).

5 Paragraph 110 of the RTf should be extended as follows :—The originator of a call with *préavis*, or *avis d'appel*, or a Bourse call, may, after the request for the call has been transmitted to the called terminal exchange, modify not more than once, the designation of the person called, without changing the network. This modification is in accordance with paragraphs 111 and 112 (Article 24, § 2) of the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932.

## RECOMMENDATION No. 26.

### Transmission of Demands for Calls during Heavy Traffic.

*The International Telephone Consultative Committee—*

*Considering :—*

That it is necessary to explain paragraph 120 (Article 26, § 1) of the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932.

*Unanimously recommends :—*

That where traffic is sufficiently heavy demands for calls shall be so transmitted between terminal exchanges that each terminal exchange shall have ready at least two requests for calls in each direction over and above the conversation in progress.

## RECOMMENDATION No. 27.

### Priority of International Calls over Internal Calls.

*The International Telephone Consultative Committee—*

*Unanimously recommends :—*

That it is desirable to explain paragraph 114 (Article 25, § 2) of the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932, as follows :—

Ordinary international calls, especially those using an international circuit between two terminal exchanges at a crow-fly distance of 600 km or more, should have priority over urgent private internal calls in the terminal countries.

## C. METHODS OF OPERATING.

### RECOMMENDATION No. 28.

#### Operating International Circuits.

*The International Telephone Consultative Committee—*

*Considering :—*

That on the one hand telephone accounting between Administrations or operating companies necessitates checking the length of the call at each extremity of the circuit and that, on the other hand, operation by order wire for calls during the busy period and for many circuits renders checking of the duration of calls at the incoming end of the circuits practically impossible,

*Unanimously recommends :—*

That on account of the number of circuits and the present conditions of the International Regulations order wire operation should not be used for the international service.

### RECOMMENDATION No. 29.

#### Assignment of the Serial Number to a Call.

*The International Telephone Consultative Committee—*

*Considering :—*

That the use of serial numbers for each call facilitates checking, preparation of calls and daily control of completed conversations ;

*Unanimously recommends :—*

1. That the serial number should be assigned by the terminal exchange at the originating end at the moment the request is passed to the incoming terminal exchange.
2. That even numbers should be reserved for calls in one direction and odd numbers for those in the other direction.
3. That the numbering should commence each day at midnight or, according to circumstances, at the commencement of the daily service.
4. That if circuits connecting two localities are distributed over several operators' positions, each position should have its own numbering series.
5. That the requests which pass through a transit exchange should receive at this exchange, in addition to the number already given by the originating terminal exchange, a second serial number assigned by the transit exchange.

### RECOMMENDATION No. 30.

#### Enunciation of Subscribers' Numbers.

*The International Telephone Consultative Committee—*

*Considering :—*

That when an operator speaks in a foreign language, it is easier for her to pronounce figures rather than numbers,

*Unanimously recommends :—*

That, on international circuits, subscriber's call numbers should be given by successively enunciating the figures.

## RECOMMENDATION No. 31.

### General Principles for equalising Waiting Times in both directions.

*The International Telephone Consultative Committee—*  
*Considering :—*

That efforts made to equalise waiting times in both directions have had good results,

*Unanimously recommends :—*

That when the waiting time on a direct international route\* exceeds the maximum limits given in C.C.I.F. Recommendation No. 3, or those fixed by arrangement between the Administrations and operating companies concerned, efforts should be made—

- (1) To equalise the waiting times in the two directions in accordance with the following principles ;
- (2) If this attempt is not successful, or does not appear likely to be successful, to utilise concurrently with the normal route one or several auxiliary routes with less traffic.

**Principles.**—If the waiting time on a direct international route exceeds the maximum given in C.C.I.F. Recommendation No. 3, that is 30 minutes for circuits less than 500 km in length, 60 minutes for circuits over 500 km in length, at one of the terminal exchanges on this route, and if this exchange has reason to believe that the difference of the delay in both directions will exceed 30 minutes, it should enquire from the corresponding terminal exchange the length of the delay at this latter exchange. If the difference of the delays in both directions is greater than half an hour, the exchange where the delay is greatest decides, in agreement with the corresponding exchange :—

- (a) In the case of circuits operated alternately, to pass two or three outgoing calls for one incoming call until the delay is almost the same in the two directions ;
- (b) In the case of circuits used in one direction, to operate one of the incoming circuits as an outgoing circuit until the waiting time is almost equal in both directions.

A terminal exchange must give the duration of the delay to the corresponding exchange requiring this information, and should also indicate its own waiting time.

For this purpose the following phrases are used :—

Here the delay is  $x$  minutes.

What is yours ?

Modification of the alternate use of circuits—

Two outgoing for one incoming.

or, Three outgoing for one incoming.

Modification of the use of a circuit—

Circuit number..... outgoing from.....

## RECOMMENDATION No. 32.

### Telegraphic Preparation of Telephone Calls.

*The International Telephone Consultative Committee—*  
*Considering :—*

That it is desirable, especially during the busy hours, to reduce as much as possible the time during which a telephone circuit is occupied by service messages and that good results have been obtained in internal service by Administrations and operating companies making telegraphic preparation for telephone calls,

*Unanimously recommends :—*

That whenever it is technically possible telephone calls should be obtained by telegraphic preparation.

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\* Only the delay between two countries directly connected is considered.

*The International Telephone Consultative Committee—*  
*Considering also :—*

That it is indispensable to set up common rules according to which telegraphic preparation of international telephone calls will be effected in order to obtain in each case the best service possible,

*Unanimously recommends :—*

That the Administrations shall conform, in this connection, to the following guiding principles :—

## GUIDING PRINCIPLES FOR THE TELEGRAPHIC PREPARATION OF TELEPHONE CALLS.

### Definition and Object.

Telegraphic preparation of telephone calls consists in utilising a telegraphic connection formed by taking into use a physical or phantom telephone circuit in order to pass, by telegraph, all service calls relating to conversations which will take place over the circuits connecting two exchanges.

Telegraphic preparation, consequently, tends to increase the efficiency of the circuits by freeing them of all service calls. It goes without saying that this is particularly important in the operation of circuits carrying heavy traffic. In no case must the use of the line for telegraphic calling affect the operation of the circuits. If, at a given moment, the telegraph signals cause any disturbance on the telephone circuit, telegraphic preparation must be provisionally suspended.

### Selection of Operating Staff.

The operators appointed to serve international circuits on which the method of telegraphic preparation is used, must not only be experienced telephonists, trained in the different operations for setting up calls, but also good telegraphists.

### Conventional Abbreviations.

In order to accelerate telegraphic transmission of the various service calls, and to avoid the difficulties due to the fact that two operators speaking different languages are on the circuit, a code of international abbreviations for the more common expressions used in telephony, independent of the telegraphic abbreviations and signals provided for in the Telegraph Regulations annexed to the International Telecommunication Convention, Madrid 1932, shall be used.

This code of abbreviations, which is reproduced below, can be supplemented, by agreement between exchanges concerned, by a series of abbreviations employed between these exchanges for the designation of important towns or exchanges :—

Ordinary Private Call	...	...	...	P	Cancelled	...	...	...	...	AL
Urgent Private Call	...	...	...	D	Avis d'appel	...	...	...	...	M
Service Call	...	...	...	A	Address (of a subscriber)	...	...	...	...	ARD
Urgent Service Call	...	...	...	AD	Subscriber has replied	...	...	...	...	AR
Ordinary State Call	...	...	...	S	To set up	...	...	...	...	AP
Urgent State Call	...	...	...	SD	To transform (modify)	...	...	...	...	TRF
Lightning Call	...	...	...	ER	Bourse	...	...	...	...	B
Subscription Call	...	...	...	AB	Central Telephone Exchange	...	...	...	...	BU
Casual Call at Fixed Time	...	...	...	F	Public Telephone Station	...	...	...	...	BP
Agreement of Duration	...	...	...	C	Circuit	...	...	...	...	CT
Checking	...	...	...	TC	Busy	...	...	...	...	O
Interrupted Call	...	...	...	IT	No longer a subscriber	...	...	...	...	NP
Request for Information	...	...	...	DR	Préavis	...	...	...	...	V
Difficult	...	...	...	DIF	Refusal	...	...	...	...	RF
Ineffective (cancellation for inaudibility)	...	...	...	IF	Nothing for me ?	...	...	...	...	?
To put on one side	...	...	...	ZL	Nothing	...	...	...	...	R
No reply	...	...	...	N	To ring	...	...	...	...	SR
					Come in on Circuit No. x...	...	...	...	...	RZx

### **Numbering of Demands for Calls.**

Demands for calls passed between two exchanges must be given a serial number, which is determined by the terminal exchange at the originating end, when the demand is passed to the incoming terminal exchange. The even numbers are reserved for calls in one direction, the odd numbers for calls in the other direction. The numbering commences each morning when the daily service begins.

Subsequently, the calls are denoted by both operators by their serial numbers only.

If circuits connecting two towns are distributed over many toll positions, each position shall have its special numbering scheme.

### **Transmission of Demands for Calls.**

Demands for calls are transmitted whilst conversations are in progress, when the presence on the lines of the operators is no longer necessary.

The connecting exchanges transmit their demands alternatively in such a manner that besides the conversations in progress, each exchange has at least two requests for calls waiting in each direction per circuit.

If one of the two exchanges has no demand waiting, signal " R " is sent out ; the other exchange can then proceed afresh to send its demands. If the signal " R " has not been sent out, the exchange must be recalled by the signal of interrogation (?).

The use of abbreviations is compulsory in the transmission of demands or in the exchange of service calls between the connecting exchanges.

When the exchange which has just called has received from the other exchange the signal " K " ( — . — ) it commences to transmit the series of demands by the starting signal in all transmission — . — . —

Transmission of a demand is ended by the signal — . . . —

Transmission of a series is ended by the signal . . . — .

Punctuation marks are not transmitted.

Abbreviations are not used for the transmission of figures except for checking.

### **Information to be included in the Transmission of a Demand.**

The transmission of all demands shall include the following information :—

1. If the call makes use of a direct circuit only :

- (a) Serial number.
- (b) Class of call, in the case of a call other than an ordinary private call, and later the time of the establishment of the call.
- (c) The telephone number of the called subscriber preceded, where necessary, by the designation of his central exchange.  
The names of the originating and terminating exchanges are omitted.

2. If the call makes use of several circuits :

- (a) Serial number.
- (b) Class of call, if other than an ordinary private call, and later the time of the establishment of the call.
- (c) Name of terminating exchange, if this is not the exchange which is being called.
- (d) Telephone number of the called subscriber preceded, if necessary, by the designation of his central exchange.
- (e) Name of the originating exchange, if this is not the calling exchange.

In the case of a connection requested as " Bourse " the designation of the called party shall be completed accordingly.

Examples of the transmission of demands :—

Private call No. 12 from Brussels for subscriber Marcadet 4628 Paris :

— . — . — 12 Marcadet 4628 — . . . —

Urgent private call No. 14 from Lyons for subscriber Central 9417 Berlin :

14 D Central 9417 Lyons — . . . —

Urgent service call No. 16 Lyons for subscriber 14794 at Antwerp switched at Brussels :

16 AD Antwerp 14794 Lyons . . . — . —

The transmission of avis d'appel and préavis shall include the particulars relating to the establishment of a call to which the avis d'appel or préavis gives rise (name or telephone number of the caller, name and full address of the person wanted—in the case of an avis d'appel ; telephone number and sufficient designation of the person or the extension called—in the case of a préavis).

### Checking of Demands.

The checking of a single demand or series of demands for calls should immediately follow the transmission and be terminated by the signal . . . — . (understood). It must include the class of call, except for ordinary private call, the terminating exchange, if necessary, the number of the called subscriber and the serial number of the demand.

The checking of avis d'appel or of a préavis which follows its transmission should include the name or the telephone number of the calling and called subscriber and the numbers in the address.

If the checking is correct the calling exchange shall reply with the signal . . . — . (understood) ; correction should be made if necessary.

### Cancellation or Modification of Demands for Calls.

To cancel a demand for a call the originating exchange shall transmit to the terminating exchange the designation "AL," followed by the serial number given to the call. The terminating exchange shall reply in the same way.

The modification of the class of a demand for a call shall be notified by the designation "TRF," followed by the new class of the call and its serial number. The terminating exchange shall reply by repeating the demand transmitted.

### Examples :—

Modification of a demand for an ordinary private call numbered 124 to an urgent call : TRF D 124.  
Modification of a demand for an urgent call numbered 138 to an ordinary call : TRF P 138.

### Agreement of the Duration of Calls Passed.

This agreement shall be made by telephone.

### Different Instances of Operation of Circuits with Telegraphic Preparation.

For the operation of international circuits with telegraphic preparation it is desirable only to allot to a telephonist-telegraphist a single line when the conversations transmitted by the line are passed alternatively in both directions, or two circuits at the most, when it is a question of circuits worked exclusively in the same direction either for outgoing or incoming calls.

In both cases the telephonist-telegraphist will use telegraphic preparation to its fullest extent—that is to say, she will use the telegraph for the transmission and reception of the demands for calls, for avis d'appel or préavis, for requests for information, for service calls during progress of call (busy, no reply, cancelling calls, modifying calls) and requests to come in on the circuit.



If, as an exception, an operator attending to two circuits used in alternative directions has charge of the telegraphic preparation the information relating to the transmission or reception of préavis and avis d'appel may be made telephonically.

### RECOMMENDATION No. 33.

#### Maximum Duration of Test Calls before the Establishment of Communication between subscribers.

*The International Telephone Consultative Committee—*

*Considering :—*

Paragraph 127 (Article 26, § 6) of the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932, and the necessity of avoiding loss of time on international circuits on account of difficulties of hearing ;

*Unanimously recommends :—*

That during the busy hours, test calls between subscribers, made by the operators at the time of the establishment of a connection in order to be certain that conversation is possible, should not last more than two minutes when there are other calls waiting.

### RECOMMENDATION No. 34.

#### Advice given to the Terminal Exchange at the calling end that the Called Stations have replied.

*The International Telephone Consultative Committee—*

*Considering :—*

Paragraphs 137 to 144 (Article 28, §§ 1 to 6) of the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932, specifying the time from which conversations should be charged and laying down that in case of disagreement the opinion of the originating terminal exchange prevails.

*Unanimously recommends :—*

That when conversation does not immediately follow the reply of the connected subscribers' stations to the ring, the operator at the controlling exchange responsible for the fee should be advised by the incoming exchange and, where necessary, by the originating exchange, as soon as the subscribers have replied.

The phrase to be employed is :—

" This is A " (name of exchange which is advising) " subscriber replied."

### RECOMMENDATION No. 35.

#### Calls during which Difficulties in Hearing arise.\*

*The International Telephone Consultative Committee—*

*Considering :—*

The arrangements of paragraphs 142 to 144 (Article 28, § 6) of the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932, and the necessity of drawing the

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\* This recommendation does not concern calls on which, before being passed to the subscribers, it is realised that conversation will be impossible or defective. In such a case the originating terminal exchange should advise the technical department that the conversation cannot take place on account of bad hearing.

attention of supervisors to calls on which transmission is unsatisfactory in order to allow them to advise the technical department of the defective circuits or subscribers' lines,

*Unanimously recommends :—*

(1) That the operator receiving the re-call of the subscriber, when difficulties of hearing arise, should immediately advise the operator at the controlling exchange.

(2) That in order to facilitate the conversation, the operator at the controlling exchange or, in her stead, the operator at another terminal exchange, be authorised, for convenience, to introduce repeaters on the line so long as this does not result in any trouble to the service in general.

(3) That the different operators concerned should advise their supervisors of all calls on which transmission is bad, stating, if possible, the nature of the particular defect.

(4) That when a supervisor at a terminal exchange discovers that, conversation being generally good between two networks, a call passed between two definite subscribers on these networks has been defective, and after having ascertained that the particular subscriber's station of her country is in good condition, should advise the supervisor at the corresponding terminal exchange by telephone during the hours of light traffic.

**Example :—**

If Lausanne (terminal exchange serving Vevey) ascertains that a call between subscriber 3541 Vevey and the subscriber at Gutenberg 6257 in Paris is defective, the Lausanne supervisor, after having checked the subscriber's station at Vevey transmits to her colleague at Paris the following advice : " Conversation between Vevey and Gutenberg 6257 defective verify subscriber's station."

(5) That it is not possible, at the moment, to specify the arrangements of paragraphs 142 to 144, 185 and 186 (Article 28, § 6, and Article 31, § 3) of the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932, which contain the conditions under which the chargeable period of a call can be reduced on account of bad transmission. That, in fact, general rules cannot be set up on this subject, and that only monitor's desks can control the manner in which the operators determine the chargeable period for difficult conversations. That, however, if, in a communication between subscriber's stations permitting parallel connection of several stations on the same line, an operator ascertains that several persons are on the line at one of these subscriber's premises, no reduction of the chargeable period for the conversation must be allowed on account of bad transmission.

### **RECOMMENDATION No. 36.**

#### **Operating Rules for International Transit Traffic.**

*The International Telephone Consultative Committee—*

*Considering :—*

The difficulties which are encountered when using an intermediate exchange for transit calls,

*Unanimously recommends :—*

1. That it is desirable to have direct circuits across transit countries in all cases where traffic justifies this.

2. That, failing these permanent direct circuits, it is advantageous, if circumstances are favourable, to allocate circuits at definite times so as to allow direct connections temporarily, according to the needs of the traffic.

*Considering, on the other hand :—*

That when it will not be possible to set up permanent direct circuits or temporary connections, it is desirable to standardise, as far as possible, the methods of operation in transit exchanges, and to

complete the arrangements given in the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932 [Paragraphs 118 and 119 of the RTf (Article 25, § 4)]

*Unanimously recommends—*

That it is desirable that the following rules for operation should be adopted for transit traffic in those cases where the connection passes through one transit exchange, that is, only uses two international circuits :—

(a) It is necessary for the transit exchange to control the call—that is to say, (1) that it classifies the calls, and (2) that it will direct the preparation and the establishment of the circuit.

(b) Demands for calls should be transmitted as quickly as possible to the transit exchange [paragraph 120 of the RTf (Article 26, § 1)].

Service advices of *préavis* or *avis d'appel* should be transmitted in priority, independently of the demands for calls.

(c) After a transit conversation the terminal exchanges may directly pass other calls, even if the demands corresponding to these latter have not been transmitted to the transit exchange, the direct connection remaining established between the two terminal exchanges as long as the transit exchange considers it advisable, providing that there are no calls of a higher class waiting at the transit exchange.

(d) The tickets for demands for transit calls of the same order in both directions shall be arranged on the same operator's position (controlling position) ; they shall take their turn amongst the other demands which are waiting at this position, according to their class and the time received by the transit exchange [paragraph 119 of the RTf (Article, 25, § 4)] ;

(e) The first transit call established in the same series is necessarily the oldest call of the highest class that is waiting on the controlling position, whatever has been the direction of the preceding call established between the two terminal exchanges and the transit exchange. Other transit calls of the series will then follow alternatively. The transit exchange will recommence alternation on the two circuits after the connection has been broken down.

(f) Before the commencement of the last but one call which has to be passed between the transit exchange and the two terminal exchanges, the two corresponding positions at the transit exchange shall advise the two other exchanges to prepare the transit connection. The terminal exchanges shall proceed then to warn the subscribers. If one of the subscribers does not reply, the transit exchange should be advised of this before the commencement of the last call preceding the transit connection, in order to avoid taking these two international circuits into use unnecessarily, and, should the case arise, to permit the preparation of the following transit connection.

(g) Circuits of the internal network and subscribers' lines should be available to the terminal exchanges in order to establish, without delay, transit calls when their turn arrives.

(h) In the case of disagreement between the terminal exchange on the caller's side, and the transit exchange concerning the duration of the calls, the opinion of the originating terminal exchange shall prevail [paragraph 144 of the RTf (Article 28, § 6)].

**Note.**—In the case where a connection uses more than two international circuits the Administrations and operating companies concerned will agree upon the controlling exchange.

## RECOMMENDATION No. 37.

### Conditions which should be fulfilled concerning the Operation of Intercommunication Systems between International Four-Wire and Two-Wire Circuits.

*The International Telephone Consultative Committee—*

*Unanimously recommends :—*

That, from the point of view of operation, it is advisable for the operating personnel always to have the same operations to perform for connecting the two circuits, no matter what be the nature of these circuits.

## RECOMMENDATION No. 38.

### System of Spelling and Phrases to be used for Operating International Circuits.

#### 1. System of Spelling.

*The International Telephone Consultative Committee—*

*Considering :—*

That it is necessary, in order to transmit words which might be difficult to hear, to have an international system of spelling,

*Unanimously advises :—*

That the system of spelling given below, which has been adopted following laboratory and operating tests, should be applied to the international telephone service.

Letters	Words to be used for Spelling.	Letters	Words to be used for Spelling.
A ... ..	Amsterdam.	N ... ..	New York.
B ... ..	Baltimore.	O ... ..	Oslo.
C ... ..	Casablanca.	P ... ..	Paris.
D ... ..	Danemark.	Q ... ..	Quebec.
E ... ..	Edison.	R ... ..	Roma.
F ... ..	Florida.	S ... ..	Santiago.
G ... ..	Gallipoli.	T ... ..	Tripoli.
H ... ..	Havana.	U ... ..	Upsala.
I ... ..	Italia.	V ... ..	Valencia.
J ... ..	Jérusalem.	W ... ..	Washington.
K ... ..	Kilogramme.	X ... ..	Xantippe.
L ... ..	Liverpool.	Y ... ..	Yokohama.
M ... ..	Madagascar.	Z ... ..	Zürich.

#### 2. List of Principal Phrases to be used for Operating International Circuits.

*The International Telephone Consultative Committee—*

*Considering :—*

Section 8 of Article 26 of the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932,

*Considering, on the other hand :—*

That it is necessary to reduce, as far as possible, loss of time and false operations due to the different languages employed in the various countries,

*Unanimously recommends :—*

1. That Administrations and operating companies should prescribe for the operators attending international circuits, for the operation of these circuits, phrases in German, English and French, specified by the International Consultative Committee and published in the form of a small pamphlet entitled "List of the most Common Phrases used in International Telephone Service."

2. That in connections between countries which do not use either the German, English or French language, the Administrations and operating companies should prescribe for use the translation of these phrases into the language employed by common agreement on these connections.

#### **RECOMMENDATION No. 39.**

**Calls without Préavis to a Subscriber's Station the number of which has been changed or which has been temporarily referred to "Absent Subscribers' Service."**

*The International Telephone Consultative Committee—*

*Considering :—*

That no charge should be made for a call without préavis unless communication is established with the desired subscriber ;

That it is desirable that Administrations and operating companies should not be obliged, each time a caller has been referred to the absent subscribers' service in another country, to verify whether the particular communication consisted of a request for information or the delivery of a message ;

*Unanimously recommends :—*

That if the requested subscriber's number has been recently changed or the line temporarily switched to the absent subscribers' service, the caller shall always be informed before communication is established ;

That if the caller elects to communicate with the absent subscribers' service, the call shall be completed and charged for according to its class and duration.

That if he refuses such connection the call shall be cancelled and shall not be charged for.

#### **RECOMMENDATION No. 40.**

**Checking the Number of Minutes of Conversation between Terminal Exchanges on International Lines.**

*The International Telephone Consultative Committee—*

*Considering :—*

That the daily checking of the number of minutes of conversation should be facilitated [the checking is referred to in paragraphs 201 to 203 of the RTf (Article 32, § 1)].

*Unanimously recommends :—*

That paragraph 142 of the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932, should be interpreted as follows :—

At the end of each call, the operators confer to agree upon the chargeable period, thus : three minutes, for calls of three minutes or less ; and in other cases, four minutes or seven minutes, or five minutes (difficult conversation actually lasting eight minutes) ; in addition, the type of call will be indicated, except in the case of an ordinary call, for example : urgent or lightning, or with préavis or avis d'appel.

In the case of a préavis or avis d'appel not followed by a conversation, the following indication is transmitted as soon as the exchanges concerned have advised each other that the call cannot take place :

Préavis to be charged, or préavis not to be charged.

Avis d'appel to be charged, or avis d'appel not to be charged.

## RECOMMENDATION No. 41.

### Instruction of the Personnel of Telephone Exchanges.

*The International Telephone Consultative Committee—*

*Considering :—*

That the professional instruction of the operating and supervisory staff is of primary importance in order to ensure good efficiency of the international circuits :

That in this respect it is very useful to train the supervisors and operators in the language of the connecting countries and to permit them to become acquainted with the customs of the subscribers, organisation of service, and operating methods at the other end of the circuit,

*Unanimously recommends :—*

That exchange of supervisors and operators shall take place frequently between the central exchanges of the different countries whenever this is justified by circumstances and the intensity of the traffic.

*The International Telephone Consultative Committee—*

*Considering :—*

That, no matter how perfect the operators may be, the circuits have a greater efficiency when they are always served by the same operators,

*Unanimously recommends :—*

That it is desirable, if internal service will permit, for the international circuits to be served always by the same operators.

## RECOMMENDATION No. 42.

### Service Instruction for the use of Long-distance Operators.

*The International Telephone Consultative Committee—*

*Considering :—*

That it is highly desirable to unify as far as possible the long distance service instructions for the use of operators on international circuits in order to obtain good operation,

*Unanimously recommends :—*

That Administrations and operating companies recommend their operators on European international circuits to adopt the regulations periodically amplified and revised by the 6th C.R. of the C.C.I.F., and entitled : " Instructions for Operators on the European International Telephone Service."

## D. TARIFFS AND METHOD OF APPLYING TARIFFS

### RECOMMENDATION No. 43.

#### International Telephone Charges.

*The International Telephone Consultative Committee—*

*Considering :—*

Paragraphs 146 to 150 (Article 29, §§ 2, 3 and 4) of the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932, which state that the charges for international telephone calls are made up of the terminal charges due to the Administrations or operating companies operating the terminal exchanges and the transit charges due to the intermediate Administrations and operating companies, if any, the territory of the terminal Administrations and operating companies being divided into zones and a uniform charge being applied to a given zone :—

*Considering also :—*

That the reduction of the number of tariff zones would permit the simplification of the tariffs which in turn would simplify the calculations of the operating services and the preparation of accounts for international calls :—

*Considering further :—*

That the tariff zones cannot always be reduced below a certain number without causing a lack of uniformity in the tariffs, especially between large neighbouring countries, so that the charges would not be proportionate to the service rendered :—

*Unanimously recommends :—*

That the following guiding principles should be followed by Administrations and operating companies to calculate and fix the rates for the various international telephone calls.

#### I. Guiding principles for fixing international telephone rates.

(a) Calls using a long distance radio telephone circuit.

1. It is advisable that each European country should constitute only one tariff zone for each call using a radio telephone circuit.

2. The land line terminal and transit portions of the charge are established by agreement between the Administrations and operating companies concerned. With reference to the land line portion of the circuit which may include one or more transit countries, the total of the terminal charge (received by the country of the originating or receiving terminal exchange) and the transit charge or charges should be equal for the same overland route between this terminal country and the radio transmitting station used. For example, the total charge for the overland portion of the London-Germany circuit is the same for a call from Germany to Australia and for a call from Germany to the U.S.A., both of which use London as a radio transmitting centre.

(b) Calls not using a long distance radio telephone circuit.

1. Charges for international calls not using a radio telephone circuit are calculated according to the crow-fly distance, and are based on the cost price.

2. In order to fix the terminal charges each country may be divided into zones, the rate for a call to a given country being the same from anywhere within one zone, and calculated from the distance

between that zone and the frontier, this distance being fixed by the Administration or operating company concerned, who are free to fix their own zone limits according to their internal traffic or for financial or other reasons, and the various zones may, if necessary, be fixed in one country for the traffic exchanged with other countries.

When new telephone connections are being established, or tariffs modified, it is desirable, especially in the case of non-neighbouring countries and countries far apart, that the Administrations and operating companies endeavour to reduce the number of tariff zones and examine the possibility of having a single zone covering the whole of the country if this can be done without difficulties and anomalies in the fixing of tariffs arising. This reduction of the number of zones seems to be generally possible, both in the case of countries whose configuration is not too far removed from that of a square or a circle, and in the case of countries where at the present time and in the immediate future as far as can be seen at present, the terminal exchanges for international calls are, and will remain, some distance from the frontier. In any case it is advisable that the two terminal countries simultaneously reduce the number of their tariff zones for international calls between one another.

It is very desirable that all international terminal exchanges possess in documentary form fully detailed and regularly kept up-to-date information as to what tariff zones, in the countries which have telephone connection with them, the various localities belong to which telephone service is available to the public. With such documentary information it is possible to avoid a large number of requests for information from operators, which occupy the circuits needlessly, and to reduce the number of queries in the international accounts.

3. The transit charges fixed by Administrations and operating companies of intermediate countries through whose territory telephone calls pass, are calculated, for each transit country, from the average crowfly distance between the points of entry and exit of the international circuits.

4. In the case of a very mountainous country or of some particular geographical situation where the lines take a very winding route, the distance from which the terminal charge is calculated may be considerably longer than the straight line between the frontier and the point of the zone which is the greatest crowfly distance from it; in the same way in such a mountainous country or in one having a peculiar configuration, the crowfly distance between the points of entry and of exit of the circuits, upon which the transit charge is based, may be increased.

5. In the case of a submarine cable section, the length of this section, so far as it serves for a basis upon which to calculate the terminal or transit charge may be multiplied, by the Administration or operating company concerned, by a constant taking into account of the annual charges (including interest, depreciation and maintenance).

## **II. Guiding principles for calculating international telephone rates.**

In 1926 a study was made of the cost price of international telephone calls not using a long-distance radio telephone link, and the C.C.I.F. estimated that under favourable operating conditions the cost price of the call could be considered as covered by the following sums:—

### **A. Frontier connections.**

It is desirable generally to adopt frontier rates not exceeding 0.60 gold francs for crowfly distances of less than 25 km between exchange areas and 1.0 gold franc for crowfly distances of from 25 km to 50 km.



## **B. Other connections.**

Operating Cost :—(a) For calls between areas in the first zone of neighbouring countries :—  
Terminal exchange :—0.60 gold franc\*

(b) For other calls :—  
Terminal exchange :—0.80 gold franc.  
Transit exchange :— 1 gold franc.

Cost of depreciation, interest on capital, and maintenance of the circuit :—  
0.60 gold franc per 100 km or fraction of 100 km of crowfly distance.

## **RECOMMENDATION No. 44.**

### **Rates for Conference Calls.**

*The International Telephone Consultative Committee—*

*Unanimously recommends :—*

That the following rules should be applied in fixing the rates for conference calls :—

The charge for a conference call consists of the principal charge plus the accessory charges ;

The principal charge is calculated from the charge applicable to the connections between the exchange chosen as the directing exchange (junction centre) and the various terminal exchanges of the international lines used, without taking into account the number of the persons engaged in the conferences.

The accessory charges are fixed by each of the countries concerned, taking into account :

- (a) Internal circuits used beyond the international terminal exchange.
- (b) Cost of the equipment used in the exchanges in establishing the conference calls.

The whole of the charge for a conference call, determined by agreement between the countries concerned, is payable by the caller.

The principal charge is divided between the various countries concerned in accordance with the rules governing ordinary calls.

The accessory charges are paid to each of the Administrations or operating companies concerned.

## **RECOMMENDATION No. 45.**

### **Rates for Subscription Calls.**

*The International Telephone Consultative Committee—*

*Considering :—*

That the application of regulations tending to equalise traffic throughout the day would be advantageous,

That, nevertheless, it would be imprudent to generalise without sufficient experience of differential tariffs,

*Unanimously recommends :—*

That as an experiment, and by agreement between the Administrations and Operating Companies concerned, subscription calls between 4 p.m. and the commencement of the light traffic period, might be charged at a rate equal to 4/5ths of the rate for ordinary calls during the busy hours.

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\* The number of lines served by one operator in short distance calls is greater than in other calls, and in consequence the operating cost is relatively less for short distance calls.

### **RECOMMENDATION No. 46.**

#### **Rates applicable to Calls originating from, or to be completed at, a Public Call Box.**

*The International Telephone Consultative Committee—*

*Considering :—*

That the amount of the unit charge is determined on the basis of the gold franc by agreement between the Administrations and operating companies concerned [Paragraph 145 of the RTf (Article 29, § 1)].

That the setting up of a call originating from, or to be completed at, a public telephone box entails special expenses, but that these are negligible in comparison with the other expenses involved in the establishment of an international call.

*Unanimously recommends :—*

That it is preferable not to make an additional charge for the use of a public call box for an international call, but that Administrations who make an additional charge for their local services may apply it to international calls, provided it does not appear in the international accounts.

### **RECOMMENDATION No. 47.**

#### **Rates applicable to Press Calls.**

*The International Telephone Consultative Committee—*

*Considering :—*

On the one hand that, as the international telephone rates are at present very nearly equal to the working costs, and that any reduction favouring certain classes of subscribers would force the Administration to increase the general rates ;

On the other hand that, as the operators are unable to follow the conversation between subscribers, the Administrations are unable to lay down tariffs varying according to the type of communication, and that, as regards calls between newspaper reporters and their offices, it would be impossible to ascertain whether the conversation consists of the transmission of material intended for publication, or was of a different nature ;

*Unanimously recommends :—*

That there is no reason why a reduction in international telephone rates should be made for Press calls.

### **RECOMMENDATION No. 48.**

#### **Calls made to a Wrong Number.**

*The International Telephone Consultative Committee—*

*Considering :—*

That making the charge for a three minutes' conversation in the case of a call to a wrong number, although justified in principle, appears excessive and likely to cause criticism,

That these calls are comparatively rare,

That Administrations and operating companies should be recompensed for their wasted efforts due to the caller's error.

*Unanimously recommends :—*

That in the case of international calls to a wrong number the charge made shall be that for one minute's conversation at the tariff applicable to the period during which the call was made.

*Considering also :—*

That the application of this regulation might lead to abuse on the part of unscrupulous users,

*Unanimously recommends :—*

That the one minute charge, in place of the three minute charge, should only apply to calls to a wrong number when the erroneous call is immediately replaced by an international call of similar nature.

#### **RECOMMENDATION No. 49.**

##### **Minimum Traffic to be Guaranteed to Transit Countries.**

*The International Telephone Consultative Committee—*

*Considering—*

That terminal Administrations and operating companies should be able to ask freely from transit Administrations and operating companies that circuits should be put at their disposal, and that the transit Administrations and operating companies should be able to supply these through circuits without having to fear that the traffic on the circuits supplied would not earn sufficient revenue to meet the cost of establishing and maintaining these transit circuits,

That paragraph 151 (Article 29, § 5) of the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932, grants the Administration or operating company which provides a first direct transit circuit, the right to include in its transit charge the working costs of a transit exchange so long as the average number of chargeable minutes of calls exchanged over this direct circuit does not reach a given minimum per working day, but that this right does not make it sufficiently attractive for an Administration or operating company to provide a first direct transit circuit at the request of other Administrations or operating companies,

*Unanimously recommends :—*

That it be admitted that an Administration or operating company from which a circuit for transit traffic is requested shall have the right to demand, in return, the guarantee of a minimum revenue.

*Considering :—*

That the traffic which can be carried by a particular circuit depends largely on the manner in which it is maintained, and that it appears desirable to interest the transit country, by some more efficacious means than the establishment of an agreed annual payment, in the maintenance of an excellent quality of service producing a satisfactory revenue by reason of the perfect condition of the portion of the circuit under the charge of that transit country, and that this objective can be attained by interesting the transit country in the total traffic carried by the circuit by means of a proportional participation in the number of communications effected, with a guaranteed minimum revenue,

*Unanimously recommends :—*

That this procedure shall be preferred to the establishment of any agreed payment, without the latter, however, being completely excluded :

*Considering :—*

That the experience acquired does not appear sufficient to justify the fixing, even provisionally, of a standard minimum value, and that the point of view of transit countries on this subject will depend, to a great extent, on present-day installation costs of the circuits requested, also on the possible use to which the available wires will be put,

*Unanimously recommends :—*

That the determination of this minimum by direct negotiations shall be left to the Administrations concerned :

*Considering :—*

That the receipts obtained from a telephone circuit depend, to a large extent, on the day-to-day maintenance of that circuit,

*Unanimously recommends :—*

That, if a minimum revenue is guaranteed, it is also advisable to effect a reduction in this revenue in respect of interruptions to the circuit in the transit country, at least when the transit country does not undertake to replace the defective circuit by another circuit ; this reduction shall take into account all the interruptions of a whole day, a complete day being regarded as the interval of time between 9 a.m. and 3 p.m. If the replacing route involves the intervention of an exchange, the charge due to the transit Administration is not modified :

*Considering :—*

That the legal time of the countries concerned may not coincide,

*Unanimously recommends :—*

That the precise hours of commencement and termination of the period of interruption that must be taken into account (9 a.m. to 3 p.m.), as well as all other details relative to the reduction arising out of interruptions, shall be fixed by direct agreement between the countries concerned :

*The International Telephone Consultative Committee—*

*Unanimously recommends :—*

That the guaranteed minimum shall only be applicable to lines allocated by the transit Administrations or operating companies for the exclusive use of the terminal countries, the partial use of other lines being remunerated in the usual manner by means of a transit charge for each call effectively passed over the circuit.

## **RECOMMENDATION No. 50.**

### **Radio-Broadcast Transmissions.**

#### **1. Conditions of Admission.**

*The International Telephone Consultative Committee—*

*Considering :—*

That the demands for the use of circuits for broadcast transmissions will continue to necessitate the intervention of the Central Administrations or " Central Departments " which act for the Administrations and operating companies on this subject,

*Unanimously recommends :—*

That the following regulations be applied to radio-broadcast transmissions :—

The demand for circuits for radio-broadcast transmissions should be addressed by the Broadcasting Organisation to which the radio-diffusion stations belong, to the Central Department of its country.

The list of these Central Departments in the different countries from whom the Broadcasting Organisation obtain the use of circuits (list containing names, postal addresses, and telegraphic addresses of the various Departments in addition to their telephone numbers) has been sent by the Secretary of the C.C.I.F. to the Administrations and operating companies belonging to the C.C.I.F., and these Administrations and operating companies undertake to send this list to the Broadcasting Companies in their respective countries.

The demands for circuits for radio-broadcast transmissions should always be submitted as soon

as possible and generally at least 10 days' notice should be given. These demands will be satisfied if there is no inconvenience to the general telephone service and if the technical conditions will permit.

In exceptional cases, this period may be reduced, Administrations and operating companies endeavouring to grant this request, without however, giving any guarantee on this point.

For each transmission of radio-broadcast programmes of interest to radio receiving stations in one country only, the Broadcasting Organisation to which the broadcasting station or stations receiving the programme belong, after preliminary arrangement with the Broadcasting Organisation to which the emitting broadcast station belongs, should make a request for the use of the necessary circuits to the Central Department of its country, together with an undertaking to pay the whole of the charge for the use of such circuits.

For each transmission of programmes of interest to broadcasting stations in several countries, the procedure should be as follows :—

The list of broadcasting stations which are to receive the programme and the name of the exchange to which the microphone is connected, is sent by the Broadcasting Organisation transmitting the programme to each of the other interested Broadcasting Organisations ; each Broadcasting Organisation should transmit this list to the Central Department of its country, after having made any additions or modifications considered necessary. This list should include all the conversation circuits requested and, if necessary, all the reserve circuits required. If, as is generally the case, no indication is given as to the speech circuits required, the Central Departments shall arrange between themselves for the speech circuits necessary.\*

The Central Departments should appoint an " Official Director " for this transmission. The Official Director should draw up, in agreement with all the Central Departments, a sketch showing the circuits to be used, including the conversation circuits and reserve circuits in the form shown below.

This sketch should include also the special repeater stations to which the Broadcasting Organisations may communicate if, during the transmission, there should arise any unforeseen incident which requires immediate attention.

This Official Director should send (as soon as possible and at the latest three days after the receipt of the list mentioned above) two copies of this sketch to each Central Department concerned, who should send a copy to the respective Broadcasting Organisation. In simple cases the Official Director, instead of preparing a sketch, may communicate, by telegraph or telephone, with the Central Departments concerned, giving the circuits to be used and any special repeater stations referred to above.

As soon as the Broadcasting Organisation, controlling one or more broadcasting stations receiving the programme, receives the necessary information concerning the circuits for which it has to pay, it should send to the Central Department of its country, within 24 hours, an agreement to pay the required charge for the use of the circuits.

In order to facilitate this procedure, the Broadcasting Organisation should study in advance the cases of multiple relaying of programmes which are likely to arise frequently.

It is useful also for the International Telecommunication Bureau to publish and keep up to date the chart of international telephone circuits in Europe specially constructed or adapted for radio-broadcast transmission. (See Recommendation No. 5 above.)

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\* Generally it will be sufficient to provide a single speech circuit between the exchange to which the transmitting station is connected and the intermediate station (Distribution Point) and this station will take care of the transmission of conversations between the exchange and the various receiving stations. In the case of very short conversations, the retransmission can be made verbally, if not, it can be taken care of by interconnecting the two sections of the circuit as in the case of a commercial transit call.

## II. Rates.

*The International Telephone Consultative Committee—*

*Considering—*

That although, strictly speaking, ordinary telephone circuits can be used for broadcasting, it is necessary for perfect transmission of music and even of speech to use circuits which are as free from crosstalk as possible and which are capable of transmitting a wider band of frequencies than is the case with ordinary telephone circuits,

That such "Specially Constructed Broadcasting Circuits" cost much more than ordinary telephone circuits,

That "Adapted Broadcasting Circuits" that is, circuits only differing from ordinary telephone circuits by being equipped with special repeaters can only be used for broadcasting generally, on account of crosstalk, by sacrificing the use of one or both of the other circuits formed by the same quad, which also increases the cost of the broadcasting circuit (the proportion of such circuits has also a tendency to decrease the profit of the specially constructed broadcasting circuits),

That the cost of maintaining and supervising circuits adapted or specially constructed for broadcasting, are higher than that for ordinary telephone circuits,

*Unanimously recommends :—*

That when circuits adapted or specially constructed for broadcasting are available they should be used for all broadcast transmission, in place of ordinary telephone circuits.

That a higher tariff should be applied to the use of special circuits for broadcasting (whether adapted or specially constructed) than for the use of ordinary telephone circuits, this higher tariff being the same whether the special circuits have been adapted or specially constructed for broadcasting.

Provisionally, in order not to hinder the development of broadcasting, an increase of 25% only, over the rate for ordinary telephone calls during the busy period, should be charged for the use of these special circuits ; for such circuits there is no necessity to distinguish between the busy and light traffic periods.

A special broadcasting circuit is a one-way transmitting circuit. If a broadcast has to be transmitted in both directions simultaneously, and it is therefore necessary to use two special circuits, this should count as two distinct transmissions. In exceptional cases when a broadcast is transmitted over an ordinary telephone circuit the "tariff for ordinary calls" should be applied at the rate for the tariff period during which the broadcast takes place.\*

At the same time the "tariff for ordinary calls" should be applied to the so-called "conversation circuits" which during the course of a broadcast transmission are used by the Broadcasting Organisations for their service calls.

The increase of 25% includes, in the case of circuits adapted for broadcast transmission, the expense of adding any special apparatus to the international circuits or the modification of any regulating devices which exist on the circuit.

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\* In order to avoid the varying interpretations of this, which have occurred in the past, the "tariff for ordinary calls" should be defined as follows, until this question has been re-examined by the C.C.I.F. :—

(a) For that portion of the broadcast taking place during the busy period, the rates for ordinary calls during the busy period should be applied.

(b) For that portion of the broadcast taking place during the light traffic period the following charges should be made :—

One half the charge laid down for ordinary calls during the busy period, if a transmission by subscription or a transmission lasting at least one hour (during the period of light traffic) is concerned ;

Three-fifths of the charge laid down for ordinary calls during the busy period, in all other cases.

To sum up, the broadcast transmissions should be provisionally charged for as follows :—

1. In the usual case where broadcast transmissions are sent over circuits adapted or specially constructed for the purpose, the charge for ordinary calls during the busy period plus 25% is applied.

Since reserve circuits are not normally supplied, should the Broadcasting Organisation think it necessary to have reserve circuits available for a broadcast, these circuits are charged at the same rate for the whole of the broadcast as if they were the broadcasting circuits themselves.

The use of conversation circuits is charged at the rate for ordinary calls (*see above*).

2. In exceptional cases when the broadcast is carried out over ordinary telephone circuits, the rates for ordinary calls are applied (*see above*).

3. When a radio-broadcast transmission is sent over a circuit, part of which has been adapted or specially constructed for transmission of music and part of which is an ordinary telephone circuit, the whole circuit is charged for at the rate for ordinary calls during the busy period, and the total fee is divided between the Administrations or operating companies concerned in the proportion of the amounts they would receive normally for the broadcasting circuit and for the ordinary telephone circuit respectively.

The fee for the use of a circuit is charged to the Broadcasting Organisation (government or private) which has undertaken to pay for the circuit in question ; the charge is made for the whole period during which the circuit is put at the disposal of this Broadcasting Organisation, before the broadcast itself takes place.

The operators at the exchanges, who already have the right to fix the chargeable period for ordinary calls, will similarly fix the chargeable period for the broadcast transmission and with the same precision.

When the exchange personnel are not permitted to do this, the technical representatives who establish the circuit should agree among themselves :—

1. The time when the circuit is placed at the disposal of the Broadcasting Organisation (commencement of the chargeable period).

2. The time when the circuit is released by the Broadcasting Organisation (end of the chargeable period).

When the two exchanges at the extreme ends of the circuit (or section of circuit) used for a radio-broadcast are agreed on the chargeable period for the transmission, the exchange nearest the Broadcasting Organisation (which pays for the use of the circuit or section of the circuit) notifies this organisation of the number of minutes charged.\*

If the transmission is relayed from intermediate exchanges, to other broadcasting stations, it is considered, from an accounting point of view, as several distinct conversations ; one between the originating exchange and the first intermediate broadcasting station, the others between the consecutive intermediate broadcasting stations, or between the last intermediate broadcasting station and the extreme broadcasting station.

When, for a certain set-up, owing to the lack of direct music circuits in one of the countries traversed by the ordinary long distance telephone circuits, use is made in this section, of a music circuit which passes through a country or countries other than those on the normal route, the charge made is based on the sum of the terminal and transit charges of the various countries traversed by the line used.

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\* Full details concerning the transmission of each international radio-broadcast are entered on a daily form such as that shown on page 609. These daily forms are sent to the International Accounting Department.

When no transit fee exists for the route used by the broadcast circuit with transit exchange on the territory of an Administration or operating company, the latter will be paid a portion of the total charge calculated as laid down in Recommendation No. 10, "Emergency Lines" (Para. 4, Case 2.b).

If an emergency line, consisting of one or more circuits, either ordinary or specially adapted or constructed for broadcasting, is used for a broadcast transmission, the charges are fixed and divided in accordance with the regulations in Recommendation No. 10, "Emergency Lines."

The charge for a circuit is always indivisible and must be paid as a whole by a single Broadcasting Organisation.

In the monthly telephone accounts the international radio-broadcast transmissions are entered under a special heading as follows :—

#### INTERNATIONAL RADIO-BROADCAST TRANSMISSION.

Rates.	Number of Units.	Credit.		Credit	
		Portion of Charge.	Amount.	Portion of Charge.	Amount.
At special rate for Radio-broadcast transmissions... ..					
At rate for ordinary calls during the busy period ... ..					
At $\frac{3}{4}$ of the rate for ordinary calls during the busy period, ... ..					
At $\frac{1}{2}$ of the rate for ordinary calls during the busy period ... ..					

### III. Radio-broadcast Transmissions by Subscription.

*The International Telephone Consultative Committee—*

*Considering :—*

That the prolonged and regular use of special broadcasting circuits by Broadcasting Organisations should be facilitated,

*Unanimously recommends :—*

That radio-broadcast transmissions by subscription should be admitted under the following conditions :—

1. The subscription period should be one month at least, a radio-broadcast being carried out each day at a fixed time for at least two consecutive hours, the transmission being sent in either direction. If the programme is transmitted in both directions, since two special broadcast circuits are required, this should count as two distinct transmissions.

2. The first hour during the use of a special circuit is charged for at the rate for an ordinary telephone call during the busy period plus 25%, the second and subsequent hours are charged for at the rate for an ordinary telephone call during the busy period plus 10% only.

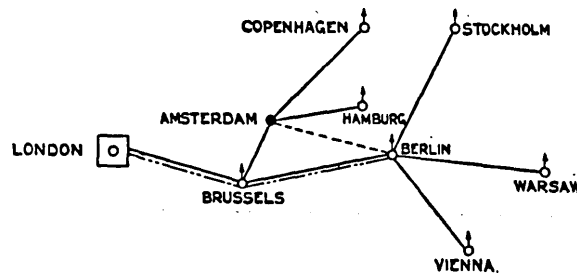
If the Broadcasting Organisations think it necessary for reserve circuits to be supplied, these circuits are charged for as though they were the actual circuits used for the broadcast, and for the entire period of the broadcast.

The conversation circuits are charged for at the rate for ordinary calls (*see above.*)



### Model sketch of the Circuits used for a Multiple Broadcast.

In the model sketch below it is supposed that the Broadcasting Organisation of Brussels which broadcasts the programme from London, pays the fee for the Brussels—London circuit, that the Broadcasting Organisation of Berlin pays the international fee for the circuit Berlin—Brussels, whilst the Organisations of Stockholm, Warsaw and Vienna pay for the circuits Berlin—Stockholm, Berlin—Warsaw and Berlin—Vienna respectively.



#### CONVENTIONS.

- RELAYING CIRCUIT.
- RESERVE CIRCUIT.
- CONVERSATION CIRCUIT.
- EXCHANGE TO WHICH THE MICROPHONE IS CONNECTED.
- INTERMEDIATE STATION (OR BRANCH POINT) NOT RELAYING THE PROGRAMME.
- BROADCASTING STATION WHICH RELAYS THE PROGRAMME.

Since Amsterdam does not broadcast the programme the Broadcasting Organisations of Hamburg and Copenhagen must agree between themselves which will pay for the circuit Brussels—Amsterdam.

In a similar manner agreement should be reached beforehand by the various Broadcasting Organisations concerned, as to the payment for speech circuits and, when necessary, reserve circuits.

	Caller (i.e. the Broadcasting Organisation paying for the use of the circuit).	Special Repeater Station for com- munication in case of unforeseen trouble on the circuit.
London-Brussels ... ..	Brussels.	
Brussels-Amsterdam ... ..	The Broadcasting Organisations of Hamburg and Copenhagen should come to an understanding as to who shall pay for the circuit Brussels-Amsterdam.	
Amsterdam-Copenhagen ... ..	Copenhagen.	
Amsterdam-Hamburg ... ..	Hamburg.	
Brussels-Berlin ... ..	Berlin.	
Amsterdam-Berlin (Reserve) ...	The Broadcasting Organisations concerned should determine which of them shall pay for the reserve circuit Amsterdam-Berlin.	
Berlin-Stockholm ... ..	Stockholm.	
Berlin-Warsaw ... ..	Warsaw.	
Berlin-Vienna ... ..	Vienna.	
London-Berlin (speech) ... ..	Berlin.	

# EXAMPLE OF DAILY FORM FOR RADIO-BROADCAST TRANSMISSIONS.

Date.....

London Exchange .....

Details of the Radio-Broadcast	Circuits or sections of circuits used in the transmission		Nature of circuits used		Time at which		Period not counted (Interruptions, etc.)	Number of		Charge per Unit	Total Charge	Name of the Broadcasting Organisation paying the Charge or Administration or operating co. receiving the payment.
	From	To*			The circuit has been handed over to the Radio Broadcasting Organisation.	The circuit has been released by the Radio Broadcasting Organisation.		Minutes Charged	Charge Units			
Concert at London relayed by Brussels, Berlin, Copenhagen (see sketch attached)†	London	Brussels	KV. 26	Budapest W.3								

† In the case of a multiple broadcast using several circuits simultaneously, a copy of the sketch showing the circuits used should be attached to this form.

\* Radio broadcasting stations should be underlined.

## RECOMMENDATION No. 51.

### International Calls using a Radio telephone Circuit.

*The International Telephone Consultative Committee—*

*Unanimously recommends :—*

That for calls using one or more radio telephone circuits the special operations necessary should be handled by technical operators and not by the normal operating personnel.

*The International Telephone Consultative Committee—*

*Considering :—*

That when a call uses one or more international land lines, it has not yet been possible to establish a regulation for fixing the controlling exchange,

*Unanimously recommends :—*

That when a call uses several radio telephone circuits, the Administrations and operating companies concerned should agree as to the controlling exchange, but it seems advisable that the terminal exchange of the radio telephone circuit at the originating end should be entrusted with the determination of the chargeable period of such a call.

*Note.*—See Recommendation No. 54 below "Application of charges for preparing calls."

## RECOMMENDATION No. 52.

### Picture Transmission between Correspondents over General Service Circuits (conditions relating to acceptance and tariffs).

*The International Telephone Consultative Committee—*

*Considering :—*

That most of the Administrations and operating companies have little experience of picture transmission by means of instruments operated by Administrations or operating companies.

*Unanimously recommends :—*

That it is premature to fix the rates for picture transmission between exchanges.

*Considering, on the other hand :—*

That the experience of some Administrations and operating companies with respect to picture transmission, carried out and maintained by the interested parties by means of their own instruments and over international telephone circuits provided by the Administrations and operating companies, shows that these transmissions involve special expenses to the Administrations and operating companies, but that these can be compensated for if it ensures the use of the circuits during periods of light traffic.

*Unanimously recommends :—*

That the transmission of pictures effected directly between the interested parties should conform to the following rules :—

1. Conditions of Acceptance : They shall be allowed without limitation of time :—

- (a) During periods of light traffic ;
- (b) During periods of heavy traffic, except during periods of maximum traffic (to be decided, when necessary by agreement between the terminal exchanges concerned),

provided that :—either

- (1) the circuits are available ; or
- (2) the waiting time for ordinary calls at the time stipulated for the transmission of pictures does not exceed, or does not appear likely to exceed by reason of this transmission, the following delays :—

15	minutes	for	circuits	less	than	500	km	in	length.			
30	"	"	"	"	"	between	500	and	1000	km	in	length.
45	"	"	"	"	"	exceeding	1000	km	in	length.		

2. Tariffs\* : Provisionally the following rates shall apply :—

- (a) For that part of the transmission falling within the heavy traffic period : the ordinary telephone call rate.
- (b) For that part of the transmission falling within the light traffic period :
  - (1) In the case of transmission by subscription or for a transmission of at least an hour during the period of light traffic, one-half the rate for an ordinary call during the heavy traffic period.
  - (2) In other cases, three-fifths of the rate for an ordinary call in the heavy traffic period.

The equipment of the central exchanges should provide the operating personnel, who are responsible for determining the chargeable period for ordinary telephone calls, with the facility for determining in the same way and with equal accuracy the chargeable period of the transmission.

Where the equipment is such that this facility is not given, the technical departments responsible for the establishment of the communication should come to an understanding with regard to :—

- (1) The moment the circuit is placed at the disposal of the users (beginning of the chargeable period).
- (2) The moment the circuits are given over by the users (end of chargeable period).

Note.—Transit Administrations and operating companies are advised to facilitate transmission tests requested by terminal Administration and operating companies, provided that the above rates be applied to these tests.

*The International Telephone Consultative Committee—*

*Considering, finally :—*

That cases may exist where picture transmission between two countries will be carried out by connecting, over a telephone circuit, an instrument belonging to and maintained by a user, to an instrument belonging to the Administration or operating company of another country and situated in an exchange in that country,

*Unanimously recommends :—*

That, in these cases, the use of the international circuit for picture transmission be subjected to the same conditions and rates (with respect to the international circuit) as those above relating to two private instruments, the Administration or operating company operating the exchange instrument making a supplementary charge for its use, the amount of which is not to appear in the international accounts.

## RECOMMENDATION No. 53.

### No-Reply from the Calling or Called Subscriber.

*The International Telephone Consultative Committee—*

*Considering :—*

That it is desirable to define the optional regulation laid down by paragraph 200 (Article 31, § 7) Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932, with reference to the making of a charge equal to that for one minute's ordinary conversation during

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\* There is no need at present to differentiate as regards the tariff for transmission of pictures between the use of a two-wire circuit and a four-wire circuit without serious modification, in spite of a four-wire circuit being capable of providing two distinct circuits in opposite directions ; actually in the case of a four-wire circuit the Administration or operating company would not be able to use the remaining two wires.

the tariff period similar to that during which the no-reply occurred (whether for an urgent or ordinary call), in the case of a no-reply from the calling subscriber at the time he is called to exchange the conversation or in the case of a no-reply from the called subscriber when he is called to receive a préavis or to take a call with préavis.

*Unanimously recommends :—*

1. That in case of no-reply from the caller at the time he is summoned by his exchange to take the call, a charge should be applied equal to that for one minute's ordinary conversation for the tariff period during which the no-reply occurred.

2. That, for occasional fixed time calls, in the case of no-reply from the calling subscriber, when he is called by his exchange to take the call (final call), only the charge applicable to one minute of ordinary conversation for the tariff period, during which the no-reply occurred, shall be made.

3. That for calls with préavis or avis d'appel and for " Bourse " calls, in case of no-reply on the part of the calling or called subscriber, the surcharge applicable to a préavis or an avis d'appel shall be made. In the case of a call with préavis when the préavis has been transmitted but has not been received due to the called subscriber not replying, the surcharge for a préavis is nevertheless applied.

4. That, for a call without avis d'appel to a call box where the call has not taken place a charge is applied equal to one minute's conversation for the tariff period in force when the caller was informed that the conversation could not take place.

#### **RECOMMENDATION No. 54.**

##### **Application of Report Charges in connection with Radio-telephone Circuits.**

*The International Telephone Consultative Committee—*

*Considering :—*

That it is desirable to standardise the application of the report charge in connection with radio telephone circuits,

*Unanimously recommends :—*

That the report charge should be applied as follows :—

##### **(a) Station to station calls.**

1. When the caller cancels the booking of his call, after its transmission over the radio portion of the circuit.

2. When the caller or the person called refuses the call.

3. When the caller does not reply at the time of the actual call: (if the station called does not reply, no report charge is made).

##### **(b) Person to person calls.**

1. When the caller cancels the booking of his call after its transmission over the radio portion of the circuit.

2. When the caller or the person called refuses the call.

3. When the caller does not reply at the time of the actual call (if the station called does not reply no report charge is made).

4. When the person called or his substitute cannot be reached or will not accept the call.

## **RECOMMENDATION No. 55.**

### **Standardisation of the Hours of Light Traffic for the Application of Tariffs.**

*The International Telephone Consultative Committee—*

*Unanimously recommends :—*

(1) That the times used as the limits for the periods of heavy and light traffic should be standardised for all Administrations and operating companies.

(2) That the standard times to be adopted for these limits should be 7 p.m. and 8 a.m. (legal time of the country of origin).

## **RECOMMENDATION No. 56.**

### **Allowances and Arrangements for Registering the Duration of Calls.**

*The International Telephone Consultative Committee—*

*Considering :—*

That the method of charging minute by minute after the first unit of conversation is more favourable to the subscriber than the old methods of charging, by which a certain allowance was made in practice,

*Unanimously recommends :—*

That to fix the chargeable duration of calls the rules given in paragraphs 137 to 144 (Article 28) of the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932, should be strictly followed, no margin being allowed.

That the Administrations and operating companies shall be advised to adopt methods of registering the duration of calls which are as near the same degree of accuracy as possible.

## **RECOMMENDATION No. 57.**

### **Recording the Chargeable Duration of Calls.**

*The International Telephone Consultative Committee—*

*Considering :—*

That it is desirable to avoid any complication of the service ;

That according to paragraph 142 (Article 28 § 6 (1) ) of the Telephone Regulations annexed to the International Telecommunication Convention, Madrid, 1932, after each call the terminal exchange operators should agree the chargeable period of the call, and that therefore it is necessary to avoid one of these operators being restricted by some indication having been given at the commencement to her subscriber as to the length of the call,

*Unanimously recommends :—*

(a) That it is not necessary to inform the calling party on an international call of the commencement of the chargeable period.

(b) That an Administration or operating company should refrain from giving to its operators instructions to warn subscribers of the expiration of every three-minute or six-minute period, without having come to an arrangement with the Administrations or operating companies concerned.

(c) That, nevertheless, if some Administrations or operating companies consider it desirable to warn users of the expiration of each three-minute period the terminal operator at the calling end, at

the commencement of the conversation, starts up an audible signal apparatus which warns the calling subscriber at the end of each three-minute period by an audible signal which does not interfere with the conversation, always provided that this is not too expensive and that it is considered as a warning only which does not involve the Administration or operating company as regards charges.

(d) That although several international exchanges use a clock having an arrangement for counting the duration of calls, which has given satisfactory results, it seems unnecessary to generalise this system, provided that all necessary precautions have been taken that counting devices operate regularly and do not show differences among themselves.

(e) That it is not absolutely necessary to indicate the time of commencement and end of a call on the tickets by means of a costly printing instrument, provided that the recording of these times in manuscript is not inconvenient.

## RECOMMENDATION No. 58.

### Defaulting Subscribers.

*The International Telephone Consultative Committee—*

*Considering :—*

That it is to the interest of Administrations and operating companies to know telephone subscribers coming from a country where they have not paid their telephone accounts, and even to afford one another mutual assistance in recovering such debts,

*Considering also :—*

That by reason of the different laws in the various countries it would be very difficult to fix regulations covering this assistance,

*Unanimously recommends :—*

That when a telephone user leaves a country in which he was a subscriber without having paid his telephone account and resides in a second country, the Administration or operating company of the original country shall advise the Administration or operating company of the second country and ask them in their turn to take such steps as they think fit to obtain payment of the outstanding accounts.

## RECOMMENDATION No. 59.

### Publicity Expense.

*The International Telephone Consultative Committee—*

*Considering :—*

That Administrations and operating companies in terminal countries are both equally interested in an increase of telephone traffic,

That, on the other hand, it is important to avoid complications in the preparation of international accounts,

*Unanimously recommends :—*

That it is not permissible for a Terminal Administration or operating company in keeping account of their publicity expenses (canvassing) to consider that their part of the tariff revenue should be greater for outgoing than for incoming calls.

## E—TRAFFIC STATISTICS.

### RECOMMENDATION No. 60.

#### International Telephone Traffic Statistics.

*The International Telephone Consultative Committee—*

*Considering :—*

The importance to users of knowing the fluctuations of the whole traffic on the principal groups of international circuits in the course of the same year and in the course of successive years, as well as the actual delay after the application of the guiding principles of the C.C.I.F. recommendation for the equalisation of these delays (Recommendation No. 31) in the case of ordinary and urgent calls,

*Unanimously recommends :—*

That Administrations and operating companies should send to the Secretariat of the C.C.I.F. during the first fortnight of January each year, statistics concerning the principal international circuits or groups of circuits (excluding circuits connecting frontier networks) ;

*Considering also :—*

That in order to avoid too many discrepancies between the statistics furnished by two Administrations or operating companies concerning the same circuit or group of circuits, these statistics should be drawn up following common guiding principles,

*Unanimously recommends :—*

1. That the daily average number of minutes of conversation exchanged during each quarter of the preceding year should be given for the periods 8 a.m. to 7 p.m. and 7 p.m. to 8 a.m. In determining this average (a) the figures established during the two first working days\* of each month shall be taken, (b) a call (ordinary, urgent or lightning) of three minutes or less than three minutes shall count as three minutes, and every call (ordinary, urgent or lightning) of more than three minutes shall count for the actual time, if necessary the last fraction of a minute counting as one minute.

2. That the average delay\* on an international circuit or group of circuits whether for urgent or ordinary calls shall be determined as follows for the two terminal exchanges concerned.

The observations are made during the two busiest hours of the first two working days of each month. The two busiest hours are decided upon by agreement between the two terminal exchanges concerned.

The equalisation of waiting times in both directions, in accordance with C.C.I.F. Recommendation No. 31, is vital both before and during these observations.

The calculation of the average delay may be made by the Administrations or operating companies concerned by one or other of the following two methods :—

*Method 1.*—The total delays on ordinary calls and the total delays on urgent calls, for all calls between the networks to which the two international terminal exchanges belong, during the two busiest onsecutive hours of each of the days of the month during which the observations were made, are taken and the total is divided by the number of the ordinary and urgent calls respectively.

*Method 2.*—A sufficiently large number of test tickets are sent to the recording operator at various times in the course of the two busiest consecutive hours of each of the days of the month during which the observations are made ; the recording operator, after noting the direction and the times, routes them to the operator concerned. This operator classifies them as though actual ordinary or urgent calls were concerned. When the turn of each of these test tickets arrives, only the time is written on them by the operator. As the average delay, the average difference between the time shown on the tickets both for the ordinary and urgent category, is taken.

3. That the statistics should be given on a form similar to the example on page 616.

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\* See Recommendation No. 1, " Definitions concerning the operation of international telephony. "



# INTERNATIONAL TELEPHONE TRAFFIC STATISTICS.

Designation of the Connections	No. of Circuits and average call minutes during the.....												Average waiting time for request registered during the two busiest consecutive hours.								Remarks *	
	1st Quarter			2nd Quarter			3rd Quarter			4th Quarter			1st Qtr.		2nd Qtr.		3rd Qtr.		4th Qtr.			Busiest Hours
	Cir- cuits †	Minutes		Cir- cuits †	Minutes		Cir- cuits †	Minutes		Cir- cuits †	Minutes		Ordinary.	Urgent	Ordinary.	Urgent	Ordinary.	Urgent				
		8 a.m. to 7 p.m.	7 p.m. to 8 a.m.		8 a.m. to 7 p.m.	7 p.m. to 8 a.m.		8 a.m. to 7 p.m.	7 p.m. to 8 a.m.		8 a.m. to 7 p.m.	7 p.m. to 8 a.m.										

\* Mention any explanation concerning abnormal variations from the statistics collected.

† Circuits permanently rented for private use should not be counted.

## RECOMMENDATION No. 61.

### Publication of General Telephone Statistics by the International Telecommunication Union.

*The International Telephone Consultative Committee—*

*Unanimously recommends :—*

1. That the International Telecommunication Union should publish general telephone statistics each year and in the form given below.

2. That Administrations and operating companies should render their reports as soon as possible to the International Telecommunication Bureau so that the statistics for the year in question can be published at the latest by August 1st of the following year.

#### FORM OF TABLE FOR GENERAL TELEPHONE STATISTICS.

I.	Population as at the last Census	...	...	...	...	...	...	...
II.	Area in square kilometres	...	...	...	...	...	...	...
III.	Number of central exchanges in service (1)*	...	...	...	...	...	...	...
	1. Automatic exchanges	...	...	...	...	...	...	...
	2. Semi-automatic exchanges	...	...	...	...	...	...	...
	3. Manual exchanges	...	...	...	...	...	...	...
	Total central exchanges	...	...	...	...	...	...	...
IV.	Number of subscribers' lines in service (2) :							
	1. Subscribers' lines directly connected to automatic exchanges	...	...					
	2. Subscribers' lines directly connected to semi-automatic exchanges	...						
	3. Subscribers' lines directly connected to manual exchanges	...	...					
	Total subscribers' lines	...	...	...	...	...	...	...
V.	Number of stations in service (3) :—							
	1. Subscribers' stations (3) (including extensions and service stations)	...						
	2. Public stations (4)	...	...	...	...	...	...	...
	Total stations	...	...	...	...	...	...	...
VI.	Toll and international circuits in service :—							
	1. Total number of internal circuits (being the total of physical, phantom and carrier circuits)	...	...	...	...	...	...	...
	2. Total number of international circuits (being the total of physical, phantom and carrier circuits)	...	...	...	...	...	...	...
	3. Total length in kilometres of bare wire circuits (internal and international) (5)	...	...	...	...	...	...	...
	(a) Physical circuits	...	...	...	...	...	...	...
	(b) Phantom circuits	...	...	...	...	...	...	...
	(c) Carrier circuits	...	...	...	...	...	...	...

\* The figures in brackets refer to the explanatory notes on pages 619 and 620.

4. Total length in kilometres of aerial or underground cable circuits (internal and international) ... ..
- (a) Two-wire physical circuits ... ..
- (b) Four-wire physical circuits ... ..
- (c) Phantom circuits (four-wire or two-wire) ... ..
5. Total length in kilometres of submarine circuits (internal and international) (6) ... ..
- (a) Two-wire physical circuits ... ..
- (b) Four-wire physical circuits ... ..
- (c) Phantom circuits (two-wire or four-wire) ... ..
- (d) Carrier circuits ... ..

## VII. Traffic :—

### 1. Local traffic :—

- (a) Number of chargeable calls (irrespective of duration) from subscribers' stations ... ..
  - (b) Number of chargeable calls (irrespective of duration) from public stations ... ..
- Total local calls ... ..
- 

### 2. Toll traffic :—

- (a) Total number of chargeable minutes of conversation :—
  - (1) During the heavy traffic period ... ..
  - (2) During the light traffic period ... ..

Total ... ..

---

### (b) Number of chargeable calls (irrespective of duration) :—

Ordinary ... ..

Urgent ... ..

Lightning ... ..

By subscription ... ..

Occasional fixed time ... ..

Radio-broadcast transmissions (7) ... ..

Total ... ..

---

### (c) Number of calls with préavis (including those not followed by a conversation) ... ..

Number of calls with avis d'appel (including those not followed by a conversation) ... ..

### 3. International Traffic (outgoing, incoming and transit) (8) :—

#### (a) Total number of chargeable minutes of conversation :—

During the heavy traffic period :—

Terminal traffic (outgoing and incoming) ... ..

Transit Traffic ... ..

During the light traffic period :—

Terminal Traffic (outgoing and incoming) ... ..

Transit Traffic ... ..

---

Total ... ..

(b) Number of chargeable calls (irrespective of duration) excluding transit traffic :—

Ordinary	...	...	...	...	...	...	...	...	...
Urgent	...	...	...	...	...	...	...	...	...
Lightning	...	...	...	...	...	...	...	...	...
Subscription	...	...	...	...	...	...	...	...	...
Occasional fixed time	...	...	...	...	...	...	...	...	...
Radio-broadcast transmission (7)	...	...	...	...	...	...	...	...	...

Total ... ..

(c) Number of calls with préavis and avis d'appel excluding transit traffic :—

Number of calls with préavis (including those not followed by a conversation)	...	...	...	...	...	...	...	...	...
Number of calls with avis d'appel (including those not followed by a conversation)	...	...	...	...	...	...	...	...	...

VIII. Total expenses in Gold Francs of the internal telephone service and of the international telephone service (including interest on capital and depreciation).—

Optional. ... ..

Total receipts in Gold Francs from the internal service and from the international service ... ..

#### EXPLANATORY NOTES.

(1) A central telephone exchange is an automatic or semi-automatic or manual installation to which subscribers are connected, and which is operated by an Administration or operating company.

(2) Include in the number of subscribers' lines the lines of the service stations and public stations.

(3) Do not include among subscribers' stations, private stations which cannot be connected with the general telephone network.

(4) Include among the public stations all those telephones which have been placed at the disposal of the public by the Administration or operating company.

(5) The length of a circuit is the route length of the conductors making up the circuit, that is, the single distance between the terminal exchanges of the circuit measured on the actual route of the circuit.

(6) In the case where a submarine cable belongs to two Administrations or operating companies, only the length of the section belonging to the particular Administration or company should be included.

(7) Under internal toll traffic, each radio-broadcast transmission, which may be broadcast by one or several stations, is counted as one only.

Under international traffic, each country taking part in the radio-broadcast transmission, either as the transmitting station, or as one or several receiving stations, or as a transit country, counts one unit.

If in the transit country, the transmission is connected to one or several receiving stations, this is nevertheless considered by this country as international radio-broadcast transmission ; it is not, therefore, mentioned in the internal traffic.

If a broadcast programme is transmitted at the same time for internal service and for the international service, it should be included as an internal transmission and as an international transmission.

If, during the period of the transmission, a change of the transmitting centre is made, this change is considered as an additional transmission from the statistical point of view.

(8) In international traffic "Transit Traffic" means the total number of chargeable minutes of conversations which have been established in transit across the country concerned, with actual intervention of an international terminal exchange situated in that country; therefore the transit traffic must not include calls over a direct circuit crossing the territory of the country concerned, and established without the intervention of a terminal exchange situated in that country.

## RECOMMENDATION No. 62.

### Supervision of International Telephone Traffic.

*The International Telephone Consultative Committee—*

*Considering :—*

That it is essential that international telephone traffic on the principal circuits be controlled simultaneously from both ends of the circuit, in order to ascertain that the circuits and the installations are in good condition, to supervise the work of operators, to ascertain to what degree subscribers collaborate with Administrations and operating companies, and eventually to improve the conditions of working of the service,

*Unanimously recommends :—*

1. That the principal international circuits should be subjected to periodical supervision, as, for instance, once every month during one of the busy hours, this supervision being effected by means of a high-impedance instrument unknown to the operators under supervision, so as to observe what happens on the line and at the operators' positions.

2. That the heads of exchanges concerned should arrange, by telegram or letter, that this supervision is made simultaneously at the two ends of the circuit, the exchange which is first in alphabetical order initiating the arrangement.

3. That in order to record the results of this supervision the following table be used. (*see app. 621, 622*).

4. That the heads of exchanges should send each other without delay a copy of each table, containing the results of this supervision.

A table should not contain data relative to a call which is actually going through at the beginning of a supervisory period; on the other hand, it should give full information about the last call, which began before the end of the period.

Among other things the table should give particulars of, for example, wrong numbers, erroneous disconnection, third subscriber on the line, error in tariff charge, lack of attention on the part of the supervising operator, use of service terms other than those contained in the list published by the C.C.I.F., etc., in order to permit a satisfactory investigation.

Information concerning the completion of the table :—

Column 1. Approximate time permitting each controlled call to be identified.

Column 4. The first observation commences either when the circuit is first put under observation or if there is a call in progress at that time, when the agreement concerning the chargeable time of that call has been concluded.

Column 10. Total duration of the conversation including, if necessary, the total period not chargeable.

Column 22. Time expressed in whole minutes as in Column 15.

## 621

RI

Total.....	
Average.....	

[illegible]

## RECOMMENDATION No. 63.

**Formula for determining the necessary number of circuits to handle a given traffic during various hours of the day.**

*The International Telephone Consultative Committee—*

*Considering :—*

That the establishment of a formula to determine the number of circuits required to handle a given traffic during various hours of the day with a definite maximum waiting time necessitates consideration of a number of factors, such as :—

- Hourly distribution of traffic (which varies on any given connection).
- Average length of conversations.
- Maximum number of calls originating at the terminal station.
- Maximum permissible waiting time.
- Number of minutes of conversation per hour which can be allowed as a normal load on one circuit.
- et cetera.

*Considering, on the other hand :—*

That such a formula is difficult to arrive at and, admitting that, even if it could be found, it would be of theoretical rather than practical value,

*Unanimously recommends :—*

That it is not expedient, in the circumstances, to continue the search for a formula which would determine the number of circuits necessary to handle a given traffic with a delay which will always be below a definite figure.

**Note.**—Administrations and operating companies are interested in the methods, even empirical ones, which are used in certain countries to determine the number of circuits which should be provided for internal traffic. It is therefore desirable that Administrations and operating companies, who use such methods, should inform the C.C.I.F. Secretariat, who in turn will advise other Administrations and operating companies belonging to the C.C.I.F.

## RECOMMENDATION No. 64.

**Forecast of international traffic. Lists of circuits to be established.**

*The International Telephone Consultative Committee—*

*Considering :—*

That in spite of the uncertainty of future traffic conditions in the course of successive years, traffic forecasts are very useful in order to prepare in advance a programme of work extending over several years ;

That the importance of the capital invested in international telephone cables and the time required for the construction and laying of new cables justify the preparation of advance programmes of work covering several years ;

*Unanimously recommends :—*

(1) That in order to facilitate an exchange of views between Administrations and operating companies concerning the creation of new international circuits, such exchanges of views as take place during plenary meetings of the C.C.I.F., but outside the regular conference work of the C.C.I.F., it will be useful to notify the C.C.I.F. Secretariat in advance at the same time as traffic statistics, the lists of new international circuits estimated to be required by Administrations and operating companies.

(2) That Administrations and operating companies interested are advised to use the form given on page 624 in recording the information on circuits, the need for which is considered necessary.



**LIST OF INTERNATIONAL CIRCUITS THE PROVISION OF WHICH IS DEEMED NECESSARY BY:—**

(Name of Administration or Operating Company) .....

Communica- tion with	Circuit Designa- tions.	Number of circuits in service on the route involved.	Name of Countries through which the route considered is passing.	Average daily number of minutes of conversation exchanged over all the circuits on the route under consideration.						Average % increase per annum observed during the last two years	Number of Circuits Proposed.			Is the Adminis- tration or Operating Company who compiled this table willing to guarantee a minimum revenue to transit countries for the projected circuits?
1.	2.	3.	4.	5.						6.	7.			8.
				In 1932		In 1933		In 1934			1935	1936	1937	
				From 8 a.m. to 7 p.m.	From 7 p.m. to 8 a.m.	From 8 a.m. to 7 p.m.	From 7 p.m. to 8 a.m.	From 8 a.m. to 7 p.m.	From 7 p.m. to 8 a.m.					

\* Give the names of the countries in alphabetical order.

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# GENERAL INDEX.

	English Page.	French Vol.	Page.
<b>A</b> coustic :			
Pressure on the diaphragm of microphone ... ..	178	III	37
Pressure on microphone of SFERT. What is mean value ? (Question 4th C.R.) ... ..	44	I	64
Shock. Protection of operators ... ..	123	II	22
Vocabulary ... ..	58	I	85
Acousto-electric index ... ..	178	III	35
<b>A</b> ircraft :			
Forced landing ... ..	584	V	77
<b>A</b> nswer :			
Speed ... ..	554	V	27
<b>A</b> nti-resonance :			
Definition ... ..	63	I	94
<b>A</b> pparatus :			
Testing and measuring. (See Testing Apparatus)			
<b>A</b> rrestors :			
Lightning ... ..	128	II	31
<b>A</b> rticulation :			
Band ... ..	{ 182 463	III IV	42 219
Correction of measurement for crew factor ... ..	469	IV	228
Definition ... ..	{ 181 463	III IV	42 219
Effect on, by non-linear distortion ... ..	233	III	141
Ideal ... ..	{ 182 463	III IV	43 219
Logatom ... ..	{ 62 182	I III	92 42
Measurement. General instructions ... ..	459	IV	212
Measurements. Low pass filter ... ..	465	IV	223
Sound ... ..	{ 62 182 463	I III IV	92 43 219
Testing Crews. How to standardise ? (Question 4th C.R.) ... ..	44	I	65
" " Specification of characteristic curves, by Dr. Collard ... ..	45	I	65
" " Observations by Messrs. Siemens & Halske ... ..	46	I	68
<b>A</b> ttenuation :			
Balance ... ..	169	III	22
" International circuit ... ..	232	III	138
" Measurement ... ..	384	IV	81
" National system ... ..	232	III	138
<b>C</b> onstant. (See Constant.)			
Definition ... ..	167	III	18
<b>D</b> istortion. (See Distortion Attenuation.)			
<b>E</b> cho ... ..	170	III	23
" Measurement ... ..	388	IV	87
Limits for carrier telephony ... ..	238	III	150
Measurement ... ..	370, 384, 404	IV	57, 81, 115
<b>N</b> on-reflection ... ..	170	III	22
" " Measurement ... ..	387	IV	87
<b>O</b> pen-wire lines ... ..	272	III	210
<b>O</b> verall ... ..	169	III	21
" Fixing minimum values for two- and four-wire circuits (Questions 3rd and 4th C.R.) ... ..	38	I	56

	English Page.	French Vol.	Page.
Attenuation:			
Overall: Holland ... ..	225	III	126
„ International, terminating circuit and international transit circuit ... ..	227	III	131
„ Limits of variation with frequency ... ..	227	III	132
„ Method of determining. (Questions 3rd and 4th C.R.) ... ..	38	I	56
„ Measurement ... ..	380	IV	74
Regularity ... ..	170	III	22
„ Measurement ... ..	387	IV	87
„ Open-wire lines ... ..	270	III	206
„ Repeater section ... ..	232	III	138
Repeater Section of open-wire line for broadcast circuit ... ..	244	III	160
Two band telephony ... ..	242	III	158
Variation with amplitude, measurement ... ..	404	IV	115
V.F. Telephony. Effect on, by carrier system ... ..	239	III	152
Audibility:			
Threshold ... ..	60	I	89
Normal threshold ... ..	60	I	90
Audiogram:			
Definition ... ..	61	I	91
Noise ... ..	61	I	91
Auditors:			
Names ... ..	21	I	29
Auditory:			
Sensation area ... ..	61	I	91
 Babble:			
Definition ... ..	174	III	28
Balance:			
Attenuation. (See Attenuation, Balance).			
Balancing Networks			
Construction, for open-wire lines ... ..	275	III	216
Band articulation... ..	182	III	42
Bar:			
Definition ... ..	59	I	87
Bel:			
Definition ... ..	{ 58	I	86
	165	III	14
Bibliography on telephone transmission:			
Abbreviations used ... ..	80	I	124
English ... ..	90	I	145
French ... ..	99	I	165
German ... ..	82	I	126
Booking:			
Definition ... ..	551	V	21
Modification of, by caller ... ..	585	V	78
Bookings:			
Serial numbers ... ..	587	V	81
Exchange of, in busy period ... ..	585	V	79
Bourse Calls ... ..	580	V	70
Bourse Exchange: when used with international circuits ... ..	256	III	181
British Telephone network: Organisation ... ..	210	III	100
Broadcast Circuits:			
Anti-distortion, adjustments for ... ..	249	III	170
Capacity unbalance, reduction by screening ... ..	245	III	162

	English Page.	French Vol.	Page.
<b>Broadcast circuits:</b>			
Compensation for temperature variation ... ..	247	III	167
Crosstalk limits, near and far end ... ..	247	III	167
Cut-off frequency ... ..	244	III	161
Date of tests ... ..	35	I	52
Designation of circuits utilized in tests ... ..	35	I	52
Electrical conditions to be considered:			
(A) General characteristics ... ..	247	III	166
(B) Method of adjustment of equalization ... ..	248	III	168
Frequency band to be transmitted ... ..	200, 247	III	80, 166
Levels ... ..	248, 250	III	169, 171
Maintenance ... ..	531	IV	348
Map ... ..	560, 604	V	37, 108
Noise ... ..	248	III	168
Non-linear distortion ... ..	247	III	167
Open-wire lines, conditions ... ..	244	III	160
Point of origin ... ..	248	III	169
Power transmitted (maximum) ... ..	247	III	166
Programme of tests ... ..	34	I	51
Psophometric voltage ... ..	248	III	168
Questions for study, 3rd C.R.:			
Disturbance of international service, how to prevent? ... ..	34	I	50
Effective resistance of loading coils ... ..	48	I	71
Equalization, should recommendations be modified? ... ..	34	I	50
Maintenance, what should C.C.I.F. recommend? ... ..	34	I	50
Maximum impulse indicators, are they satisfactory? ... ..	34	I	50
Volume of first amplifier, should limits be fixed? ... ..	34	I	50
Repeater output levels, limits of variation ... ..	250	III	171
Screened ... ..	244, 245	III	161, 162
" effect of magnetic induction ... ..	245	III	163
" crosstalk ... ..	245	III	162
Study of distribution of values of volume ... ..	36	I	52
Systematic tests of international ... ..	34	I	51
Testing frequency ... ..	531	IV	349
Transient phenomena ... ..	247	III	167
Use of hypsographs (Automatic Level Recorders) ... ..	{ 35 534	I IV	52 353
Voltage, maximum ... ..	249	III	169
Volume transmitted ... ..	249	III	170
<b>Broadcast repeaters:</b>			
See Repeaters, broadcast.			
<b>Broadcast transmission over land lines:</b>			
Admission ... ..	603	V	106
Chargeable time. Agreement ... ..	{ 536 606	IV V	356 111
Charges (Rates) ... ..	605	V	108
Control circuit ... ..	{ 534 604	IV V	354 107
General conditions ... ..	603	V	106
Map of circuits ... ..	560, 604	V	37, 108
Multiple relay ... ..	604, 605, 608	V	107, 108, 113
Subscription rate ... ..	607	V	112
Technical procedure. (See also "Maintenance.") ... ..	532	IV	350
Two-way ... ..	605	V	109
Use of international circuits ... ..	203	III	87

											English Page.	French Vol.	Page.
Brochure :													
International telephony.	Publication	...	...	...	...	...	...	...	...	...	568	V	51
Busy hour :													
Agreed limits	...	...	...	...	...	...	...	...	...	...	613	V	121
Circuit or Circuit Group	...	...	...	...	...	...	...	...	...	...	552	V	23
Exchange	...	...	...	...	...	...	...	...	...	...	552	V	23
C.C.I.F. :													
Collaboration with International Telecommunication Union	...	...	...	...	...	...	...	...	...	...	547	V	15
Collaboration with other technical organisations	...	...	...	...	...	...	...	...	...	...	547	V	14
Commissions of Rapporteurs (C.R.)	...	...	...	...	...	...	...	...	...	...	543, 545	V	8, 11
Financial Regulations	...	...	...	...	...	...	...	...	...	...	545	V	12
General Secretary	...	...	...	...	...	...	...	...	...	...	543, 544	V	9, 11
Organisation	...	...	...	...	...	...	...	...	...	...	541, 542	V	5, 7
Plenary Meeting	...	...	...	...	...	...	...	...	...	...	542, 544	V	7, 10
Representation on Committee of Liaison between International Electrical Associations	...	...	...	...	...	...	...	...	...	...	547	V	15
Representation of colonies, protectorates and mandated territories	...	...	...	...	...	...	...	...	...	...	546	V	14
Representation of private telephone companies	...	...	...	...	...	...	...	...	...	...	546	V	13
Secretariat. Regulations for personnel	...	...	...	...	...	...	...	...	...	...	548	V	16
SFERT Laboratory	...	...	...	...	...	...	...	...	...	...	543	V	9
„ „ Regulations for personnel	...	...	...	...	...	...	...	...	...	...	549	V	18
Cable :													
For broadcast transmission	...	...	...	...	...	...	...	...	...	...	244	III	161
Characteristics for national system	...	...	...	...	...	...	...	...	...	...	277	III	220
Circuits in : earthing of	...	...	...	...	...	...	...	...	...	...	123	II	23
Factory lengths ; specification	...	...	...	...	...	...	...	...	...	...	320	III	288
General recommendations	...	...	...	...	...	...	...	...	...	...	277	III	220
Plumbing, jointing and drying. Precautions when gas is present	...	...	...	...	...	...	...	...	...	...	58, 70	I	85, 105
Sections of, in open-wire lines	...	...	...	...	...	...	...	...	...	...	270, 282, 284, 292	III	207, 229, 236, 249
Star quad, and paired star quad	...	...	...	...	...	...	...	...	...	...	277	III	220
Testing points	...	...	...	...	...	...	...	...	...	...	277	III	221
Cables :													
International, map of (Question 6th C.R.)	...	...	...	...	...	...	...	...	...	...	{ 51 556	I V	76 31
Cables submarine :													
Attenuation	...	...	...	...	...	...	...	...	...	...	279	III	223
Attenuation, balance	...	...	...	...	...	...	...	...	...	...	279	III	224
Carrier current telephony	...	...	...	...	...	...	...	...	...	...	281	III	226
Crosstalk, near and far end	...	...	...	...	...	...	...	...	...	...	279	III	223
Distortion, phase	...	...	...	...	...	...	...	...	...	...	279	III	223
Factory lengths : Uniformity	...	...	...	...	...	...	...	...	...	...	279	III	223
General conditions	...	...	...	...	...	...	...	...	...	...	278	III	222
Hysteresis losses	...	...	...	...	...	...	...	...	...	...	279	III	223
Level, input and output	...	...	...	...	...	...	...	...	...	...	278	III	222
Noise	...	...	...	...	...	...	...	...	...	...	278	III	222
Operating conditions	...	...	...	...	...	...	...	...	...	...	279	III	224
Phantom circuits, use of	...	...	...	...	...	...	...	...	...	...	281	III	228
Psophometric voltage	...	...	...	...	...	...	...	...	...	...	278	III	222
Stability	...	...	...	...	...	...	...	...	...	...	279	III	223
Stability, calculation	...	...	...	...	...	...	...	...	...	...	279	III	224
Call :													
Aircraft, forced landing	...	...	...	...	...	...	...	...	...	...	584	V	77
Avis d'appel	...	...	...	...	...	...	...	...	...	...	575	V	63
Booking	...	...	...	...	...	...	...	...	...	...	551	V	21

													English Page.	French Vol. Page.
Call :														
Bourse	...	...	...	...	...	...	...	...	...	...	...	...	580	V 70
Conference	...	...	...	...	...	...	...	...	...	...	...	...	{ 259 584	III 188
Conference charges	...	...	...	...	...	...	...	...	...	...	...	...		V 76
Contract, agreement between exchanges and subscribers	...	...	...	...	...	...	...	...	...	...	...	...	572	V 57
Definition	...	...	...	...	...	...	...	...	...	...	...	...	551	V 22
Demand for, modification to	...	...	...	...	...	...	...	...	...	...	...	...	585	V 78
„ „ Transmission of during heavy traffic	...	...	...	...	...	...	...	...	...	...	...	...	585	V 79
Direct	...	...	...	...	...	...	...	...	...	...	...	...	552	V 24
Double switch	...	...	...	...	...	...	...	...	...	...	...	...	553	V 25
Duration. Allowances and arrangements for registering	...	...	...	...	...	...	...	...	...	...	...	...	613	V 121
„ Chargeable, recording of	...	...	...	...	...	...	...	...	...	...	...	...	613	V 121
Effective	...	...	...	...	...	...	...	...	...	...	...	...	551	V 22
Fixed time	...	...	...	...	...	...	...	...	...	...	...	...	575	V 61
Hearing difficulty	...	...	...	...	...	...	...	...	...	...	...	...	592	V 89
Indirect	...	...	...	...	...	...	...	...	...	...	...	...	553	V 24
International personal (Question 6th and 7th C.R.)	...	...	...	...	...	...	...	...	...	...	...	...	50	I 75
International, priority of	...	...	...	...	...	...	...	...	...	...	...	...	586	V 80
Paid by person called	...	...	...	...	...	...	...	...	...	...	...	...	581	V 72
Percentage of Effective to Booked	...	...	...	...	...	...	...	...	...	...	...	...	551	V 22
Préavis	...	...	...	...	...	...	...	...	...	...	...	...	577	V 66
Press rates	...	...	...	...	...	...	...	...	...	...	...	...	601	V 102
Procedure in case of difficulty of hearing	...	...	...	...	...	...	...	...	...	...	...	...	592	V 89
Publicity	...	...	...	...	...	...	...	...	...	...	...	...	565	V 44
Serial number assigned to each (Question 6th C.R.)	...	...	...	...	...	...	...	...	...	...	...	...	51	I 75
Serial number assigned to each	...	...	...	...	...	...	...	...	...	...	...	...	587	V 81
Single switch	...	...	...	...	...	...	...	...	...	...	...	...	553	V 25
Stock Exchange	...	...	...	...	...	...	...	...	...	...	...	...	580	V 70
Subscription : Forms of Agreement	...	...	...	...	...	...	...	...	...	...	...	...	572	V 56
„ Charges	...	...	...	...	...	...	...	...	...	...	...	...	600	V 101
Telegraphic preparation	...	...	...	...	...	...	...	...	...	...	...	...	588	V 83
Test. Maximum duration	...	...	...	...	...	...	...	...	...	...	...	...	592	V 88
Toll (Trunk) priority	...	...	...	...	...	...	...	...	...	...	...	...	258	III 185
Transit	...	...	...	...	...	...	...	...	...	...	...	...	553	V 24
Utilising a radio telephone circuit	...	...	...	...	...	...	...	...	...	...	...	...	610	V 116
Without préavis to subscriber referred to "absent subscribers' service"	...	...	...	...	...	...	...	...	...	...	...	...	596	V 94
Wrong number	...	...	...	...	...	...	...	...	...	...	...	...	601	V 103
Call office :														
Rates	...	...	...	...	...	...	...	...	...	...	...	...	601	V 102
Canvassing :														
Cost	...	...	...	...	...	...	...	...	...	...	...	...	614	V 123
Capacity :														
Effective	...	...	...	...	...	...	...	...	...	...	...	...	322	III 293
Unbalance	...	...	...	...	...	...	...	...	...	...	...	...	175, 323	III 31, 294
„ Limits	...	...	...	...	...	...	...	...	...	...	...	...		III 295
„ Measurements	...	...	...	...	...	...	...	...	...	...	...	...	419	IV 140
„ Reduction by screening	...	...	...	...	...	...	...	...	...	...	...	...	245	III 162
Unbalance to sheath : Measurement	...	...	...	...	...	...	...	...	...	...	...	...	422	IV 145
Carrier Circuits :														
Attenuation, Limits	...	...	...	...	...	...	...	...	...	...	...	...	238	III 150
Cross modulation	...	...	...	...	...	...	...	...	...	...	...	...	267	III 201
Crosstalk ; near and far end	...	...	...	...	...	...	...	...	...	...	...	...	238	III 151
Equivalent, Limits	...	...	...	...	...	...	...	...	...	...	...	...	237	III 149
Frequency band to be transmitted	...	...	...	...	...	...	...	...	...	...	...	...	238	III 150



	English Page.	French Vol.	Page.
<b>Carrier Circuits :</b>			
Interconnection ... ..	239	III	152
Maintenance tests ... ..	427	IV	153
Measurements ... ..	424	IV	150
" of crosstalk ... ..	425	IV	152
" during setting up ... ..	424	IV	150
" of overall attenuation ... ..	425	IV	150
" of impedance ... ..	425	IV	152
" of noise ... ..	426	IV	152
Periodic tests. (See "Maintenance.")			
Psophometric E.M.F. Limits ... ..	239	III	151
Reflection co-efficient. Limits ... ..	239	III	151
Setting up ... ..	515	IV	324
<b>Carrier Current :</b>			
Use of ... ..	238	III	142
<b>Carrier System :</b>			
Component parts of ... ..	237	III	148
Effect on attenuation of V.F. Telephony ... ..	240	III	152
Oscillators ... ..	237	III	148
Questionnaire for establishing ... ..	240	III	153
Spacing of open-wire lines ... ..	238	III	150
<b>Carrier telegraphy :</b>			
Question for Study 3rd C.R. Frequency and power for private international transmission	31	I	44
Question for Study 3rd C.R. Prevention of clicks, etc., on telephone circuit used for private transmission ... ..	31	I	45
Question for Study 3rd C.R. and C.C.I.T. Super-audio, avoiding disturbance caused by telephone transmission ... ..	31	I	45
<b>Carrier telephony :</b>			
Crosstalk and other disturbances... ..	238	III	151
Equivalent and levels ... ..	237	III	149
Frequencies to be employed ... ..	240	III	154
Frequency distortion ... ..	238	III	150
Frequency for single channel carrier ... ..	240	III	154
General characteristics ... ..	236	III	147
Impedance ... ..	238	III	150
Impedance variations. Limits ... ..	238	III	150
Interconnections and echos ... ..	239	III	152
Low frequency channels ... ..	239	III	152
Mixed lines ... ..	283	III	230
Model questionnaire for existing lines prior to establishing ... ..	240	III	153
Monitoring and adjustment ... ..	239	III	152
Question for Study 3rd C.R. Capacity unbalance values ... ..	48	I	71
" " " Effective resistance of loading coils ... ..	48	I	71
Side band to suppressed ... ..	237, 240	III	148, 154
Signalling ... ..	239	III	152
<b>Carrier telephony, two-band :</b>			
Attenuation, equivalent and level, ... ..	242	III	158
Crosstalk, near and far end. Limits ... ..	244	III	159
Definition ... ..	241	III	154
Distortion, non-linear. Limits ... ..	243	III	159
Economic considerations ... ..	242	III	156
Frequency band ... ..	242	III	157
Gain regulation. Limits ... ..	243	III	159
General characteristics ... ..	240	III	154

												English Page.	French Vol.	Page.
Carrier telephony, two-band:														
Impedance variation.	Limits	...	...	...	...	...	...	...	...	...	...	243	III	159
Technical conditions		...	...	...	...	...	...	...	...	...	...	242	III	157
Carrier wave:														
Suppressed	...	...	...	...	...	...	...	...	...	...	...	237, 240	III	148, 154
Chargeable time:														
Agreement	...	...	...	...	...	...	...	...	...	...	...	596	V	95
Definition	...	...	...	...	...	...	...	...	...	...	...	554	V	27
Notification to subscribers...	...	...	...	...	...	...	...	...	...	...	...	613	V	121
Radio telephone circuits	...	...	...	...	...	...	...	...	...	...	...	610	V	116
Ticket pricing	...	...	...	...	...	...	...	...	...	...	...	614	V	121
Charges:														
Applicable to "Wrong number"	...	...	...	...	...	...	...	...	...	...	...	602	V	103
" " "No reply"	...	...	...	...	...	...	...	...	...	...	...	611	V	119
Broadcast transmission. (See "Broadcast Transmission.")														
Fixing of, (a) with radio telephone circuit	...	...	...	...	...	...	...	...	...	...	...	598	V	98
(b) without radio telephone circuit	...	...	...	...	...	...	...	...	...	...	...			
International Telephony. General rules	...	...	...	...	...	...	...	...	...	...	...	598	V	97
" " Division between countries concerned	...	...	...	...	...	...	...	...	...	...	...	599	V	100
Transferred	...	...	...	...	...	...	...	...	...	...	...	581	V	72
Circuit:														
Control for broadcast transmission	...	...	...	...	...	...	...	...	...	...	...	604	V	107
International, for carrier. Essential characteristics (Question 3rd C.R.)	...	...	...	...	...	...	...	...	...	...	...	28	I	38
Telephone. Definition	...	...	...	...	...	...	...	...	...	...	...	552	V	23
Usage	...	...	...	...	...	...	...	...	...	...	...	555	V	28
Circuit Noise. (See Noise.)														
Circuits:														
Broadcast. (See "Broadcast Transmission.")														
Broadcast, Map of	...	...	...	...	...	...	...	...	...	...	...	560, 604	V	37, 108
Four-wire interconnection	...	...	...	...	...	...	...	...	...	...	...	236	III	147
Four-wire to two-wire, operating methods	...	...	...	...	...	...	...	...	...	...	...	595	V	93
Instructions for setting up and maintenance	...	...	...	...	...	...	...	...	...	...	...	512, 514	IV	318, 321
International, List of and map	...	...	...	...	...	...	...	...	...	...	...	556	V	31
International Exchange to Urban Exchange. Attenuation distortion limit	...	...	...	...	...	...	...	...	...	...	...	255	III	180
" " " " Attenuation. Limit...	...	...	...	...	...	...	...	...	...	...	...	254	III	180
" " " " Characteristic impedance	...	...	...	...	...	...	...	...	...	...	...	255	III	181
" " " " Conditions	...	...	...	...	...	...	...	...	...	...	...	254	III	180
" " " " Crosstalk, near end	...	...	...	...	...	...	...	...	...	...	...	255	III	180
" " " " Cut-off frequency	...	...	...	...	...	...	...	...	...	...	...	255	III	180
" " " " Frequency band	...	...	...	...	...	...	...	...	...	...	...	254	III	180
" " " " Noise. Limit	...	...	...	...	...	...	...	...	...	...	...	255	III	180
Radio Telephone Circuit. Anti-fading device. Conditions to be fulfilled by (Question 5th C.R.)														
" " " Automatic volume regulators	...	...	...	...	...	...	...	...	...	...	...	31	I	44
" " " Chargeable time	...	...	...	...	...	...	...	...	...	...	...	316	III	282
" " " Charges for preparation time	...	...	...	...	...	...	...	...	...	...	...	610	V	116
" " " Connection by means of four-wire land line. Procedure	...	...	...	...	...	...	...	...	...	...	...	612	V	120
" " " Co-ordination of telephony and	...	...	...	...	...	...	...	...	...	...	...	317	III	285
" " " Frequency band	...	...	...	...	...	...	...	...	...	...	...	313	III	277
" " " General conditions	...	...	...	...	...	...	...	...	...	...	...	313	III	278
" " " International calls, use	...	...	...	...	...	...	...	...	...	...	...	313	III	277
" " " International calls, use	...	...	...	...	...	...	...	...	...	...	...	610	V	116
" " " Land lines connected to	...	...	...	...	...	...	...	...	...	...	...	314	III	279
" " " Mobile, connection with land network	...	...	...	...	...	...	...	...	...	...	...	314	III	279
" " " Noise	...	...	...	...	...	...	...	...	...	...	...	317	III	286
" " " Noise voltage limit, operation of echo suppressors	...	...	...	...	...	...	...	...	...	...	...	314	III	279

											English Page.	French Vol.	Page.
Circuits:													
Radio Telephone Circuit. Overall equivalent	...	...	...	...	...	...	...	...	...	...	313	III	278
" " " Phase distortion	...	...	...	...	...	...	...	...	...	...	314	III	279
Radio Telephone. Signal to noise ratio	...	...	...	...	...	...	...	...	...	...	314	III	278
" " Technical operator	...	...	...	...	...	...	...	...	...	...	314	III	280
" " Terminal equipment	...	...	...	...	...	...	...	...	...	...	610	V	116
" " Voice operated switching device	...	...	...	...	...	...	...	...	...	...	315	III	280
" " Volume indicator	...	...	...	...	...	...	...	...	...	...	314	III	280, 282
" " Volume indicator	...	...	...	...	...	...	...	...	...	...	315, 316	III	281, 282
Screened, for broadcast transmission	...	...	...	...	...	...	...	...	...	...	245	III	161, 162
Setting up	...	...	...	...	...	...	...	...	...	...	514	IV	321
" Carrier current	...	...	...	...	...	...	...	...	...	...	515	IV	324
" Final documents	...	...	...	...	...	...	...	...	...	...	516	IV	325
" Final tests and measurements	...	...	...	...	...	...	...	...	...	...	516	IV	324
" Frontier output level...	...	...	...	...	...	...	...	...	...	...	514	IV	322
" Level diagram	...	...	...	...	...	...	...	...	...	...	514, 516	IV	322, 325
" Preliminary exchange of particulars	...	...	...	...	...	...	...	...	...	...	527, 528		342, 344
" Preliminary exchange of particulars	...	...	...	...	...	...	...	...	...	...	514, 525	IV	321, 340
" Preliminary exchange of particulars	...	...	...	...	...	...	...	...	...	...	526		341
" Preliminary tests and measurements	...	...	...	...	...	...	...	...	...	...	514	IV	322
" Singing point of two-wire repeaters	...	...	...	...	...	...	...	...	...	...	515	IV	324
Telephone. Tests	...	...	...	...	...	...	...	...	...	...	379	IV	73
" Use of, for broadcast transmission	...	...	...	...	...	...	...	...	...	...	203	III	87
" Use of, for picture telegraphy	...	...	...	...	...	...	...	...	...	...	250	III	173
" Two-wire circuits non-admissible for picture telegraphy	...	...	...	...	...	...	...	...	...	...	250	III	174
Clicks (noise). Definition	...	...	...	...	...	...	...	...	...	...	174	III	28
Co-efficient, reflection. (See Reflection Co-efficient.)													
Coils:													
Heat, characteristics	...	...	...	...	...	...	...	...	...	...	128	II	30
Commission of Rapporteurs (C.R.):													
Chief Rapporteurs	...	...	...	...	...	...	...	...	...	...	23	I	31
Composition	...	...	...	...	...	...	...	...	...	...	22, 55	I	31, 81
Statutory Regulations	...	...	...	...	...	...	...	...	...	...	543, 545	V	8, 11
1st. "Directives" Sub-Committee	...	...	...	...	...	...	...	...	...	...	113	II	6
1st. Questions for Study. (Interference)	...	...	...	...	...	...	...	...	...	...	25	I	34
2nd. Questions for Study. (Corrosion)	...	...	...	...	...	...	...	...	...	...	27	I	37
3rd. Permanent Maintenance Sub-Committee	...	...	...	...	...	...	...	...	...	...	509, 511	IV	314, 317
3rd, 4th. and 5th. Questions for Study. (Transmission)	...	...	...	...	...	...	...	...	...	...	532		350
4th. Permanent Committee for SFERT Laboratory	...	...	...	...	...	...	...	...	...	...	28, 48	I	38, 72
6th and 7th. Questions for Study. (Operation and Tariffs)	...	...	...	...	...	...	...	...	...	...	549	V	18
8th. Questions for Study. (Symbols)	...	...	...	...	...	...	...	...	...	...	49	I	73
8th. Questions for Study. (Symbols)	...	...	...	...	...	...	...	...	...	...	51	I	76
Compliance:													
Acoustic	...	...	...	...	...	...	...	...	...	...	63	I	93
Conductor:													
Diameter, Notes on...	...	...	...	...	...	...	...	...	...	...	234	III	142
Constant:													
Attenuation	...	...	...	...	...	...	...	...	...	...	65	I	96
" Image	...	...	...	...	...	...	...	...	...	...	168	III	19
" Image	...	...	...	...	...	...	...	...	...	...	65	I	97
" Image	...	...	...	...	...	...	...	...	...	...	167	III	18
Conjugate attenuation	...	...	...	...	...	...	...	...	...	...	168	III	20
Conjugate phase	...	...	...	...	...	...	...	...	...	...	169	III	20
Conjugate transfer	...	...	...	...	...	...	...	...	...	...	168	III	19

												English Page.	French Vol.	Page.
Constant :														
Image phase	...	...	...	...	...	...	...	...	...	...	...	{ 65 167	I III	97 18
„ transfer	...	...	...	...	...	...	...	...	...	...	...	167	III	18
Iterative phase	...	...	...	...	...	...	...	...	...	...	...	{ 65 168	I III	96 19
Phase ...	...	...	...	...	...	...	...	...	...	...	...	168	III	19
Propagation ...	...	...	...	...	...	...	...	...	...	...	...	168	III	19
„ per member	...	...	...	...	...	...	...	...	...	...	...	65	I	96
„ per unit length	...	...	...	...	...	...	...	...	...	...	...	64	I	96
Transfer	...	...	...	...	...	...	...	...	...	...	...	65	I	97
Wave length	...	...	...	...	...	...	...	...	...	...	...	168	III	19
Constants, electrical :														
Uniform distribution of	...	...	...	...	...	...	...	...	...	...	...	234	III	143
Conversation :														
Length	...	...	...	...	...	...	...	...	...	...	...	554, 596	V	27, 95
Corrosion :														
Chemical. Buried cables	...	...	...	...	...	...	...	...	...	...	...	154	II	81
„ Cable in conduits, etc.	...	...	...	...	...	...	...	...	...	...	...	154	II	81
„ Definition	...	...	...	...	...	...	...	...	...	...	...	154	II	80
„ Lead and alloys	...	...	...	...	...	...	...	...	...	...	...	154	II	80
„ Method of distinguishing from electrolysis	...	...	...	...	...	...	...	...	...	...	...	155	II	82
„ Principal causes	...	...	...	...	...	...	...	...	...	...	...	154	II	80
„ Proposed recommendations	...	...	...	...	...	...	...	...	...	...	...	154	II	80
Electrolytic. (See "Electrolysis")														
Questions of protection against (2nd C.R.)	...	...	...	...	...	...	...	...	...	...	...	27	I	37
Crew factor :														
Correction of articulation measurement	...	...	...	...	...	...	...	...	...	...	...	469	IV	228
Definition	...	...	...	...	...	...	...	...	...	...	...	182	III	43
Crosstalk :														
A.T. & T. proposition in connection with minimum losses on two- and four-wire circuits												40	I	61
Broadcast transmission, near and far end. Limits	...	...	...	...	...	...	...	...	...	...	...	247	III	167
Carrier circuits, near and far end	...	...	...	...	...	...	...	...	...	...	...	238	III	151
Carrier current: Measurement	...	...	...	...	...	...	...	...	...	...	...	409	IV	123
Carrier telephony, two band	...	...	...	...	...	...	...	...	...	...	...	244	III	159
Coupling: near and far end	...	...	...	...	...	...	...	...	...	...	...	174	III	29
Frequency curve	...	...	...	...	...	...	...	...	...	...	...	414	IV	132
General considerations	...	...	...	...	...	...	...	...	...	...	...	404	IV	116
Intelligible and unintelligible	...	...	...	...	...	...	...	...	...	...	...	174	III	28
Inverted and uninverted	...	...	...	...	...	...	...	...	...	...	...	174	III	28
International circuit, near end, maximum	...	...	...	...	...	...	...	...	...	...	...	233	III	140
Line transformers	...	...	...	...	...	...	...	...	...	...	...	332	III	310
Loading coils	...	...	...	...	...	...	...	...	...	...	...	325	III	298
Measurement. Disturbing generator	...	...	...	...	...	...	...	...	...	...	...	409	IV	124
„ Fixed frequency generator	...	...	...	...	...	...	...	...	...	...	...	410	IV	125
„ Mixed frequency generator	...	...	...	...	...	...	...	...	...	...	...	411	IV	127
„ Near end, and far end	...	...	...	...	...	...	...	...	...	...	...	404, 407	IV	116, 120
„ Receiving apparatus	...	...	...	...	...	...	...	...	...	...	...	412	IV	130
„ Use of psophometer filter	...	...	...	...	...	...	...	...	...	...	...	413	IV	132
Meter ...	...	...	...	...	...	...	...	...	...	...	...	183	III	45
„ Description of	...	...	...	...	...	...	...	...	...	...	...	405	IV	117
Near and far end	...	...	...	...	...	...	...	...	...	...	...	174	III	29
Picture telegraphy	...	...	...	...	...	...	...	...	...	...	...	174	III	176
Question for Study 3rd C.R. International telephone circuit, limiting value of												31	I	45
„ „ „ Objective measurement	...	...	...	...	...	...	...	...	...	...	...	32	I	46

	English Page.	French Vol. Page.
Crosstalk :		
Question for Study 3rd C.R. Should crosstalk volume be considered ... ..	32	I 46
"          "          "          How to define and measure crosstalk between two circuits by a single value ... ..	32	I 46
Repeater section of cable, limits ... ..	327	III 301
Screened circuits, near and far end ... ..	245	III 162
Submarine cables ... ..	279	III 223
Table of conditions to be fulfilled by different measuring methods ... ..	415	IV 134
Telegraph, infra-acoustic ... ..	308	III 268
Telegraphy on superposed circuits ... ..	309	III 270
Telex ... ..	310	III 272
Current :		
Direct. Maximum on cable ... ..	477	IV 242
Currents, Return, in a tramway network ... ..	143	II 64
Cycle. Definition ... ..	58	I 85
Daily call-over. Should this be abandoned (Question for Study 6th and 7th C.R.) ...	51	I 75
Decibel and decineper :		
Conversion tables ... ..	166	III 15, 16
Definition ... ..	{ 58, 59 165	I 86 III 14
Definitions :		
Acoustic ... ..	58	I 85
Telephonic transmission ... ..	165	III 13
Degea carbon monoxide detector ... ..	68	I 102
Delay :		
International circuit, or group of circuits. Total and average ... ..	553, 554	V 25, 26
Total maximum ... ..	555	V 30
Delay distortion :		
Definition by various values (Question for Study 3rd and 4th C.R.) ... ..	33	I 48
Delegates :		
List of ... ..	5	I 5
Density :		
Sound energy ... ..	60	I 88
Dielectric strength. Should AC or DC tests be used, etc. (Question for Study 4th C.R.)...	33	I 47
"Directives" :		
Protection ..... ..	113	II 5
Directory :		
Telephone ... ..	568	V 49
Distortion :		
Amplitude ... ..	172	III 26
Attenuation, limits ... ..	227	III 132
" Subscribers' apparatus. Measurement ... ..	430	IV 161
Delay ... ..	172	III 25
Frequency ... ..	172, 227	III 25, 132
" Measurement. Circuits ... ..	396, 404	IV 101, 115
" " Apparatus ... ..	430	IV 161
" Transmission impairment ... ..	182	III 44
Harmonic ... ..	172	III 26
" Broadcast transmission, limits ... ..	247	III 167
" Measurement ... ..	403	IV 114
" Question for Study 3rd and 4th C.R. Long distance circuit. Methods of measuring ... ..	37	I 55
" Question for Study 3rd and 4th C.R. Long distance circuit. Limits for the attenuation of ... ..	37	I 55

	English Page.	French Vol.	Page.
Distortion:			
Measurement ... ..	396	IV	101
Measurement of reduction of transmission quality due to ... ..	472	IV	233
Non-linear ... ..	172	III	25
„ Broadcast transmission. Limits ... ..	247	III	167
„ Effect on articulation ... ..	233	III	141
„ Measurement ... ..	403	IV	114
„ Question for Study 4th C.R. Subscriber's apparatus: How to define ... ..	36	I	54
„ „ „ „ 4th C.R. Best method of measuring ... ..	36	I	54
„ „ „ „ 4th C.R. Subscriber's microphones. What reduction of transmission quality is due to ... ..	36	I	54
„ „ „ „ 3rd and 4th C.R. Long distance circuit, how to define ... ..	37	I	54
„ Subscribers' apparatus. Measurement ... ..	431	IV	163
Phase ... ..	172	III	25
„ Broadcast transmission. Limits ... ..	247	III	167
„ Limitation ... ..	201, 233	III	82, 140
„ Measurement ... ..	396	IV	102
„ Picture telegraphy ... ..	251	III	175
„ Radio link circuits ... ..	314	III	279
Drainage:			
Electric, Study ... ..	134, 142	II	49, 62
Drying out, cable ends and joints, in presence of gas ... ..	70	I	105
E.M.F.:			
Psophometric ... ..	175	III	29
Earth plates. Electric drainage and ... ..	134	II	49
Earthing:			
of telephone lines ... ..	123	II	23
Echo:			
A. T. & T. proposition, in connection with minimum working losses of two or four-wire circuits ... ..	39	I	57
Attenuation. (See Attenuation, Echo.)			
Definition ... ..	170	III	23
General recommendations ... ..	231	III	137
Suppressors, Analysis of disturbances caused by ... ..	29	I	42
„ Hang-over time (Question to Study 3rd and 4th C.R.) ... ..	29	I	41
„ Local sensitivity ... ..	39	I	60
„ Location (Question to Study 3rd and 4th C.R.) ... ..	29	I	42
„ Picture telegraphy, use for ... ..	251	III	174
„ Propagation time between two (Question for Study 3rd and 4th C.R.)... ..	29	I	41
„ Recommendation to use ... ..	231	III	137
„ Specification ... ..	334	III	313
„ (or reaction suppressors). Avoiding false operation (Question to Study 5th C.R.) ... ..	31	I	44
„ Zero level sensitivity ... ..	39	I	57
Electric soldering and plumbing in presence of gas ... ..	70	I	105
Electro-Acoustic Index. ... ..	178	III	35
Electrolysis:			
Collaboration with interested organisations ... ..	133	II	47
Electrical measurements in connection with ... ..	149	II	73
Information concerning ... ..	133	II	47
Method of distinguishing from chemical corrosion ... ..	155	II	82
Recommendations, proposed. Calculation of return currents ... ..	143	II	64
„ „ General clauses ... ..	136	II	52
„ „ Measurement of currents in cable sheath ... ..	149	II	73

	English Page.	French Vol.	Page.
Electrolysis:			
Recommendations, proposed. Measurement of earth currents ... ..	151	II	76
"          "          Measurement of P.D. and voltage gradient ... ..	152	II	77
"          "          Measurement of resistance of rail joints ... ..	153	II	78
"          "          Protection by electric drainage ... ..	142	II	62
"          "          "          against electric traction ... ..	137	II	54
"          "          "          of underground cables ... ..	140	II	60
"          "          Testing methods ... ..	149	II	73
Electrostatic formulae, for determining electric induction ... ..	113	II	6
Electro-technical Associations, Delegates from ... ..	9	I	11
Energy:			
Sound, density ... ..	60	I	88
Enquiries ... ..	582	V	73
Equalisation:			
Broadcast circuits ... ..	248	III	168
Carrier repeaters ... ..	267	III	201
Two-wire repeaters ... ..	262	III	192
Equivalent:			
Carrier system limits ... ..	237	III	149
Carrier telephony, two band ... ..	242	III	158
Loudness ... ..	61	I	90
"    Contours ... ..	61	I	91
Measurement ... ..	380, 404	IV	74, 116,
	520		333
Of two four-wire circuits interconnected ... ..	236	III	147
Overall. Open-wire lines ... ..	270	III	207
Picture transmission ... ..	251	III	174
Reference ... ..	180	III	39
"    France ... ..	221	III	117
"    International, limit between two operators and between operator and subscriber	199	III	79
"    International overall limits between subscribers ... ..	197, 198	III	76, 77
"    Measurement ... ..	433	IV	168
"    Sending and receiving systems ... ..	198, 227	III	77, 131
"    Subdivision of maximum values, Germany ... ..	207	III	95
Relative ... ..	180	III	40
V.F. telegraphy ... ..	311	III	273, 275
Equivalent (effective transmission):			
Germany ... ..	196	III	75
Great Britain ... ..	195, 216	III	73, 100
Method of measurement (Question to Study 4th C.R.) ... ..	38	I	56
Study of (Question to Study 4th C.R.) ... ..	38	I	56
U.S.A. ... ..	194, 223	III	70, 122
Exchange:			
Busy hour ... ..	552	V	23
Local ... ..	254	III	180
Long distance ... ..	256	III	183
Protection of ... ..	129	II	42
Facilities:			
Available to public ... ..	572	V	56
Factor:			
Force ... ..	65	I	98





													English Page.	French Vol. Page.
Fuses :														
Characteristics	...	...	...	...	...	...	...	...	...	...	...	...	126, 127	II 27, 29
Gain :														
Effective	...	...	...	...	...	...	...	...	...	...	...	...	169	III 20
Insertion	...	...	...	...	...	...	...	...	...	...	...	...	169	III 21
Measuring Set, description...	...	...	...	...	...	...	...	...	...	...	...	...	{ 183 382	III 44 IV 79
Repeater, measurement	...	...	...	...	...	...	...	...	...	...	...	...	382	IV 79
Gases :														
Dangerous, tests for	...	...	...	...	...	...	...	...	...	...	...	...	67	I 101
Gasoscope (Strache), for gas detection in manholes	...	...	...	...	...	...	...	...	...	...	...	...	68	I 102
German long distance network. Organization	...	...	...	...	...	...	...	...	...	...	...	...	206	III 92
Guiding Principles concerning protection (see "Directives").														
Harmonic distortion. (See Distortion.)														
Harmonic telegraphy. (See Telegraphy V.F.)														
Heat coils	...	...	...	...	...	...	...	...	...	...	...	...	128	II 30
Hertz	...	...	...	...	...	...	...	...	...	...	...	...	167	III 17
Impairment :														
Frequency distortion transmission	...	...	...	...	...	...	...	...	...	...	...	...	182	III 44
Noise transmission	...	...	...	...	...	...	...	...	...	...	...	...	183	III 44
Impedance :														
Acoustic	...	...	...	...	...	...	...	...	...	...	...	...	62	I 92
Blocked	...	...	...	...	...	...	...	...	...	...	...	...	66	I 98
Characteristic	...	...	...	...	...	...	...	...	...	...	...	...	167	III 18
" calculation of	...	...	...	...	...	...	...	...	...	...	...	...	328	III 307
Conjugate	...	...	...	...	...	...	...	...	...	...	...	...	{ 64 167	I 95 III 17
Image	...	...	...	...	...	...	...	...	...	...	...	...	{ 65 167	I 97 III 17
Iterative	...	...	...	...	...	...	...	...	...	...	...	...	{ 65 197	I 97 III 17
Limits of international circuits	...	...	...	...	...	...	...	...	...	...	...	...	227	III 130
Measurements	...	...	...	...	...	...	...	...	...	...	...	...	384	IV 81
Mechanical	...	...	...	...	...	...	...	...	...	...	...	...	62	I 92
Motional	...	...	...	...	...	...	...	...	...	...	...	...	66	I 98
Normal	...	...	...	...	...	...	...	...	...	...	...	...	66	I 98
Transfer	...	...	...	...	...	...	...	...	...	...	...	...	{ 65 197	I 95 III 17
Unbalance to earth. Measurement	...	...	...	...	...	...	...	...	...	...	...	...	419	IV 140
Unit area	...	...	...	...	...	...	...	...	...	...	...	...	62	I 92
Variation limits, for carrier telephony	...	...	...	...	...	...	...	...	...	...	...	...	238	III 150
" " for two band telephony	...	...	...	...	...	...	...	...	...	...	...	...	243	III 159
" mixed lines	...	...	...	...	...	...	...	...	...	...	...	...	283	III 232
Indicator :														
Palladium chloride, for carbon monoxide	...	...	...	...	...	...	...	...	...	...	...	...	71	I 107
Indicators :														
Chargeable time. Accuracy	...	...	...	...	...	...	...	...	...	...	...	...	613	V 121
Induction :														
Magnetic. Effect on screened circuits	...	...	...	...	...	...	...	...	...	...	...	...	245	III 163
Power	...	...	...	...	...	...	...	...	...	...	...	...	174	III 28
" Protection against	...	...	...	...	...	...	...	...	...	...	...	...	113	II 5

												English Page.	French Vol.	Page.
Inertance :														
Acoustic. Definition	...	...	...	...	...	...	...	...	...	...	...	62	I	93
Information :														
Calls containing requests for	...	...	...	...	...	...	...	...	...	...	...	582	V	73
Insertion :														
Loss or gain	...	...	...	...	...	...	...	...	...	...	...	{ 64 169	I III	96 21
Loss. Measurement	...	...	...	...	...	...	...	...	...	...	...	373	IV	63
Intelligibility :														
Definition	...	...	...	...	...	...	...	...	...	...	...	181, 182	III	42, 43
Words and phrases	...	...	...	...	...	...	...	...	...	...	...	{ 61, 62 182	I III	91, 92 43
Intensity :														
Level, sound, definition	...	...	...	...	...	...	...	...	...	...	...	60	I	88
Sound measurement	...	...	...	...	...	...	...	...	...	...	...	474	IV	236
Interconnection :														
Four-wire circuits	...	...	...	...	...	...	...	...	...	...	...	236	III	147
Carrier circuits, effect on echo and level	...	...	...	...	...	...	...	...	...	...	...	239	III	152
Intermodulation	...	...	...	...	...	...	...	...	...	...	...	267	III	201
Interference :														
Question of protection against (1st C.R. Study)	...	...	...	...	...	...	...	...	...	...	...	25	I	34
Interfering effect, relative value of, at different frequencies	...	...	...	...	...	...	...	...	...	...	...	115	II	9
Interfering voltage. Objective measurement of equivalent	...	...	...	...	...	...	...	...	...	...	...	120	II	17
International circuits for ordinary telephony :														
Crosstalk and other disturbances...	...	...	...	...	...	...	...	...	...	...	...	233	III	140
Echo effects	...	...	...	...	...	...	...	...	...	...	...	231	III	137
Frequency distortion	...	...	...	...	...	...	...	...	...	...	...	227	III	132
General conditions	...	...	...	...	...	...	...	...	...	...	...	226	III	129
Impedance	...	...	...	...	...	...	...	...	...	...	...	226	III	130
Line noise	...	...	...	...	...	...	...	...	...	...	...	233	III	140
Non-linear distortion	...	...	...	...	...	...	...	...	...	...	...	233	III	141
Phantomng	...	...	...	...	...	...	...	...	...	...	...	236	III	146
Propagation time	...	...	...	...	...	...	...	...	...	...	...	232	III	140
Relative levels	...	...	...	...	...	...	...	...	...	...	...	228	III	133
Stability	...	...	...	...	...	...	...	...	...	...	...	232	III	138
Terminal equivalent	...	...	...	...	...	...	...	...	...	...	...	227	III	131
Transient phenomena	...	...	...	...	...	...	...	...	...	...	...	233	III	140
Transit equivalent	...	...	...	...	...	...	...	...	...	...	...	227	III	131
International operators' positions :														
General conditions and operators' instruments	...	...	...	...	...	...	...	...	...	...	...	257	III	184
Service observing position. General conditions	...	...	...	...	...	...	...	...	...	...	...	258	III	186
" " " Impedance	...	...	...	...	...	...	...	...	...	...	...	259	III	187
" " " Transmission losses	...	...	...	...	...	...	...	...	...	...	...	259	III	187
Transmission losses	...	...	...	...	...	...	...	...	...	...	...	257	III	185
International telephone communications :														
European Service. C.C.I.F. recommendations	...	...	...	...	...	...	...	...	...	...	...	185	III	48
International telephone service :														
Between two countries, arrangements	...	...	...	...	...	...	...	...	...	...	...	562	V	40
Extension	...	...	...	...	...	...	...	...	...	...	...	561	V	39
Transmission quality. Criterion	...	...	...	...	...	...	...	...	...	...	...	185	III	49
List of phrases used in operating	...	...	...	...	...	...	...	...	...	...	...	595	V	94
Junction lines and local exchanges	...	...	...	...	...	...	...	...	...	...	...	254	III	180
Junction lines :														
Recommendations	...	...	...	...	...	...	...	...	...	...	...	253	III	177

												English Page.	French Vol. Page.
<b>Level :</b>													
Absolute	...	...	...	...	...	...	...	...	...	...	...	173	III 26
Broadcast circuits	...	...	...	...	...	...	...	...	...	...	...	248, 250	III 169, 171
Carrier circuits, interconnecting : allowable variation	...	...	...	...	...	...	...	...	...	...	...	239	III 152
Carrier system. Limits	...	...	...	...	...	...	...	...	...	...	...	237	III 149
Carrier telephony, two band	...	...	...	...	...	...	...	...	...	...	...	243	III 158
Definition	...	...	...	...	...	...	...	...	...	...	...	173	III 26
Diagram	...	...	...	...	...	...	...	...	...	...	...	514, 516, 527, 528	IV 322, 325, 342, 344
Intensity	...	...	...	...	...	...	...	...	...	...	...	60	I 89
Maximum and minimum four-wire circuit	...	...	...	...	...	...	...	...	...	...	...	230	III 135
" " " two-wire circuit	...	...	...	...	...	...	...	...	...	...	...	231	III 137
Measurement	...	...	...	...	...	...	...	...	...	...	...	381	IV 76
Picture transmission	...	...	...	...	...	...	...	...	...	...	...	251	III 174
Relative	...	...	...	...	...	...	...	...	...	...	...	173	III 26, 133
Sensation	...	...	...	...	...	...	...	...	...	...	...	61	I 90
Signalling. Limits	...	...	...	...	...	...	...	...	...	...	...	201	III 82, 83
Transmission. Diagram definition	...	...	...	...	...	...	...	...	...	...	...	173	III 27
" Measuring instruments. Graduation	...	...	...	...	...	...	...	...	...	...	...	173	III 27
Lightning arrestors	...	...	...	...	...	...	...	...	...	...	...	128	II 31
Line scratches (noise)	...	...	...	...	...	...	...	...	...	...	...	174	III 28
<b>Lines :</b>													
Emergency	...	...	...	...	...	...	...	...	...	...	...	566	V 45
" for extending a radio telephone circuit	...	...	...	...	...	...	...	...	...	...	...	567	V 49
International. Recommendations	...	...	...	...	...	...	...	...	...	...	...	269	III 205
Leasing international, not comprising submarine sections	...	...	...	...	...	...	...	...	...	...	...	583	V 74
<b>Lines, mixed :</b>													
Carrier telephony on : Loading for carrier telephony	...	...	...	...	...	...	...	...	...	...	...	283	III 230
General conditions	...	...	...	...	...	...	...	...	...	...	...	281	III 228
Impedance variations. Curves for	...	...	...	...	...	...	...	...	...	...	...	283	III 232
List of Questions to be studied	...	...	...	...	...	...	...	...	...	...	...	25	I 34
<b>Loading :</b>													
Carrier and radio-broadcast circuits : Table A	...	...	...	...	...	...	...	...	...	...	...	328	III 304
Coils, specifications	...	...	...	...	...	...	...	...	...	...	...	324	III 297
Extra light. Use	...	...	...	...	...	...	...	...	...	...	...	234	III 142
Mixed lines	...	...	...	...	...	...	...	...	...	...	...	282	III 228
Notes on	...	...	...	...	...	...	...	...	...	...	...	234	III 142
Open-wire lines	...	...	...	...	...	...	...	...	...	...	...	269	III 205
Types. General remarks	...	...	...	...	...	...	...	...	...	...	...	327	III 303
V.F. Telephony, Tables B and C	...	...	...	...	...	...	...	...	...	...	...	329, 330	III 305, 306
Loading cases	...	...	...	...	...	...	...	...	...	...	...	324	III 297
<b>Logatom :</b>													
Articulation	...	...	...	...	...	...	...	...	...	...	...	{ 62 181	I 92 III 42
Compilation of list	...	...	...	...	...	...	...	...	...	...	...	461	IV 216
Definition	...	...	...	...	...	...	...	...	...	...	...	181	III 42
To be used	...	...	...	...	...	...	...	...	...	...	...	459	IV 212
<b>Logatoms : Question for Study 4th C.R. Comparison of volume indicators. Should definite sequence be used</b>													
sequence be used	...	...	...	...	...	...	...	...	...	...	...	44	I 65
<b>Long circuits :</b>													
Recommendations concerning	...	...	...	...	...	...	...	...	...	...	...	233	III 142
<b>Loss :</b>													
Active Return. Limits, International circuit	...	...	...	...	...	...	...	...	...	...	...	232	III 139
" " " Measurement	...	...	...	...	...	...	...	...	...	...	...	387	IV 87
" " " National system	...	...	...	...	...	...	...	...	...	...	...	232	III 138
Equivalent net	...	...	...	...	...	...	...	...	...	...	...	169	III 21

												English Page.	French Vol.	Page.
Loss :														
Insertion	...	...	...	...	...	...	...	...	...	...	...	{ 64 169	I III	96 21
„ Measurement	...	...	...	...	...	...	...	...	...	...	...	373	IV	63
Return. Active and passive	...	...	...	...	...	...	...	...	...	...	...	170	III	22, 23
Transducer	...	...	...	...	...	...	...	...	...	...	...	64	I	96
Variation. Definition proposed by A. T. & T. Co.	...	...	...	...	...	...	...	...	...	...	...	41	I	63
Losses, exchange :														
Measurement	...	...	...	...	...	...	...	...	...	...	...	374	IV	63
Losses. Minimum working for two- or four-wire circuits. Proposition of A. T. & T. Co.	...	...	...	...	...	...	...	...	...	...	...	38	I	57
Loudness :														
Contours, equivalent	...	...	...	...	...	...	...	...	...	...	...	61	I	91
Definition	...	...	...	...	...	...	...	...	...	...	...	61	I	90
Equivalent	...	...	...	...	...	...	...	...	...	...	...	61	I	90
Loudspeaker	...	...	...	...	...	...	...	...	...	...	...	66	I	99
<b>Madrid Convention :</b>														
Extracts from	...	...	...	...	...	...	...	...	...	...	...	541	V	5
<b>Maintenance :</b>														
Broadcast circuits	...	...	...	...	...	...	...	...	...	...	...	531	IV	348
„ „ Marking	...	...	...	...	...	...	...	...	...	...	...	536	IV	356
„ „ Modifications to be noted to C.C.I.F.	...	...	...	...	...	...	...	...	...	...	...	532	IV	349
„ „ Programme of periodic tests	...	...	...	...	...	...	...	...	...	...	...	531	IV	348
Broadcast transmission. Agreement of times	...	...	...	...	...	...	...	...	...	...	...	536	IV	356
„ „ Control circuit	...	...	...	...	...	...	...	...	...	...	...	534	IV	354
„ „ Interval signal	...	...	...	...	...	...	...	...	...	...	...	535	IV	354
„ „ Maximum power	...	...	...	...	...	...	...	...	...	...	...	535	IV	355
„ „ Renter's preparatory period	...	...	...	...	...	...	...	...	...	...	...	533	IV	352
„ „ Setting-up period	...	...	...	...	...	...	...	...	...	...	...	534	IV	353
„ „ Setting up and restoration of circuits	...	...	...	...	...	...	...	...	...	...	...	533	IV	351
„ „ Technical responsibility	...	...	...	...	...	...	...	...	...	...	...	532	IV	350
„ „ Volume indicator	...	...	...	...	...	...	...	...	...	...	...	533	IV	351
Carrier circuits	...	...	...	...	...	...	...	...	...	...	...	427	IV	153
Circuits used for ordinary telephony	...	...	...	...	...	...	...	...	...	...	...	509	IV	313
Control station	...	...	...	...	...	...	...	...	...	...	...	510, 534	IV	314, 353
Fault Localisation. Crosstalk	...	...	...	...	...	...	...	...	...	...	...	524	IV	339
„ „ Defective transmission	...	...	...	...	...	...	...	...	...	...	...	523	IV	338
„ „ General	...	...	...	...	...	...	...	...	...	...	...	523	IV	337
„ „ „ procedure	...	...	...	...	...	...	...	...	...	...	...	510	IV	315
„ „ Methods	...	...	...	...	...	...	...	...	...	...	...	523	IV	337
„ „ Noise	...	...	...	...	...	...	...	...	...	...	...	523	IV	338
„ „ Signalling	...	...	...	...	...	...	...	...	...	...	...	523	IV	338
„ „ Singing	...	...	...	...	...	...	...	...	...	...	...	524	IV	338
Fault returns	...	...	...	...	...	...	...	...	...	...	...	511, 524,	IV	316, 339,
												530		347
International circuits. Instructions for setting up and maintenance	...	...	...	...	...	...	...	...	...	...	...	512	IV	318
Level diagram	...	...	...	...	...	...	...	...	...	...	...	516, 527,	IV	325, 342,
												528		344
„ List of Phrases „ to be used	...	...	...	...	...	...	...	...	...	...	...	509	IV	313
Periodic tests. Balance attenuation	...	...	...	...	...	...	...	...	...	...	...	522	IV	335
„ „ Carrier circuits. Frequency	...	...	...	...	...	...	...	...	...	...	...	522	IV	336
„ „ „ „ Intensity	...	...	...	...	...	...	...	...	...	...	...	523	IV	336
„ „ „ „ Levels	...	...	...	...	...	...	...	...	...	...	...	522	IV	336
„ „ „ „ Synchronisation	...	...	...	...	...	...	...	...	...	...	...	522	IV	336
„ „ „ „ Sub-controlling office	...	...	...	...	...	...	...	...	...	...	...	510	IV	315

	English Page.	French Vol.	Page.
Maintenance :			
Periodic tests. Frequency ... ..	518	IV	328
„ „ Impedance ... ..	522	IV	335
„ „ Methods ... ..	520	IV	333
„ „ Organisation ... ..	517	IV	326
„ „ Overall equivalent and levels ... ..	520	IV	333
„ „ Power supply ... ..	522	IV	335
„ „ Programme ... ..	511, 529	IV	316, 346
„ „ „ Modifications to be notified to C.C.I.F. ... ..	511	IV	317
„ „ Repeater gain ... ..	522	IV	335
„ „ Signalling ... ..	521	IV	334
„ „ „ Apparatus ... ..	522	IV	336
„ „ Singing point ... ..	522	IV	335
„ „ Speech ... ..	521	IV	335
„ „ Stability ... ..	522	IV	335
„ „ Valves ... ..	522	IV	336
Permanent Sub-Commission ... ..	509, 511, 532	IV	314, 317, 349
Private wires ... ..	254	III	179
Sub-Controlling Office ... ..	510	IV	314
V.F. telegraph circuits ... ..	524	IV	339
Management Report, 1934 (Rapport de Gestion) ... ..	17	I	23
Manholes :			
Lighting ... ..	69	I	103
Plumbing, etc. ... ..	70	I	105
Precautions, when working in ... ..	67	I	101
Ventilation ... ..	75	I	115
Map of international circuits. Question for Study 6th C.R. ... ..	51, 556	I, V	76, 31
Masking effect of sound ... ..	61	I	90
Measurement :			
Carrier. (See "Carrier.")			
Crosstalk. (See "Crosstalk.")			
Distortion. (See "Distortion.")			
Earth and sheath currents. (See "Electrolysis.")			
Impedance. (See "Impedance.")			
Level ... ..	381	IV	76
Psophometric. (See "Psophometric.")			
Receiver. Efficiency ... ..	428, 432	IV	157, 166
Repeater gain ... ..	382	IV	79
Side tone ... ..	445	IV	191
Singing margin ... ..	391	IV	92
Subscribers' apparatus ... ..	253, 428, 448	III, IV	177, 157, 194
Telephone circuits ... ..	349	IV	73
Measuring apparatus. (See Testing Apparatus.)			
Measuring set :			
Gain ... ..	183	III	44
Impedance unbalance ... ..	384	IV	81
Noise ... ..	418	IV	137
Noise ratio ... ..	424	IV	149
Recording. Characteristics ... ..	480	IV	246
„ Measurement of attenuation ... ..	371	IV	59
„ Measurement of attenuation variation with amplitude ... ..	404	IV	116
„ Measurement of balance attenuation ... ..	384	IV	83

	English Page.	French Vol.	Page.
Measuring set:			
Recording. Measurement of crosstalk—frequency curve ... ..	414	IV	132
„ Measurement of equivalent and level ... ..	381	IV	78
„ Measurement of equivalent—frequency curve ... ..	396	IV	101
„ Measurement of propagation time ... ..	400	IV	109
„ Measurement of singing point and stability ... ..	391	IV	93
„ Transmission ... ..	183	III	44
Reflection ... ..	388	IV	87
Return loss ... ..	384	IV	81
Transmission ... ..	183	III	44
„ Description ... ..	375	IV	65, 67
Message recording systems. Question for Study 4th C.R. Technical conditions to be fulfilled...	33	I	47
Meter:			
Circuit noise ... ..	183	III	45
Crosstalk ... ..	183	III	45
Room noise ... ..	474	IV	236
Sound ... ..	183	III	45
Microbar. Definition ... ..	59	I	87
Microphone. Definition ... ..	66	I	98
„ Efficiency. Question for Study 4th C.R. Specification for apparatus used in tests of	44	I	65
Microphones: Question for Study 4th C.R. Methods of determining transmission characteristics	48	I	71
Minutes:			
Chief Delegates' meeting ... ..	17	I	23
Closing session ... ..	20	I	27
Opening session ... ..	10	I	12
Monitoring equipment:			
General requirements ... ..	258	III	186
Question for Study 3rd C.R. Frequency limits ... ..	29	I	40
Multi-channel carrier telephony. (See "Carrier.")			
Music circuit. (See "Broadcast.")			
Music repeater. (See "Repeater.")			
Near-end crosstalk. (See "Crosstalk.")			
Nellisen's gas detector ... ..	68	I	102
Network:			
Balancing. (See "Balancing.")			
Equivalent ... ..	66	I	99
Neper ... ..	{ 59 165	I III	86 13
Conversion tables ... ..	166	III	15, 16
Netherlands. Switching programme ... ..	224	III	126
"No Reply": Charges applicable ... ..	611	V	119
Noise:			
Audiogram ... ..	61	I	91
Broadcast circuits, psophometric voltage. Limits ... ..	248	III	168
Definition ... ..	173, 174	III	27, 28
Frying ... ..	173	III	27
Limits for international Circuits ... ..	233	III	140
Line ... ..	173	III	27
„ Objective measurement ... ..	115	II	8
Measurement of reduction of transmitter quality ... ..	272	IV	233
Measuring set ... ..	417, 424	IV	137, 149
Meter ... ..	183	III	45
Objective measurement ... ..	{ 115 418	II IV	8 138

	English Page.	French Vol.	Page.
Noise :			
Picture transmission ... ..	252	III	176
Question for Study 4th C.R. Normal room. Choice ... ..	37	I	55
" " 3rd and 4th C.R. Limits, etc., on international circuit ... ..	28	I	39
" " 3rd C.R. Repeater valves. How should specification cover... ..	36	I	53
" " 4th C.R. Room noise. What is the quantitative effect of certain ... ..	34	I	49
" " 4th C.R. Room noise. Characteristics of apparatus to measure ... ..	34	I	49
Radio telephone circuits ... ..	314	III	279
Ratio ... ..	120	II	18
Reduction by screening ... ..	246	III	165
Ripple ... ..	174	III	28
Room ... ..	173	III	27
" Measurement ... ..	474	IV	236
Sub-audio telegraphy ... ..	308	III	267
Submarine cables ... ..	278	III	222
Subjective measurement ... ..	417	IV	136
Super-audio telegraphy ... ..	309	III	269
Telegraph ... ..	174	III	28
Telex ... ..	310	III	272
Transient ... ..	174	III	28
Transmission impairment ... ..	183, 188	III	44, 53
Transmitter ... ..	173	III	27
Transmitter. Measurement ... ..	447	IV	194
Valve ... ..	173	III	27
Voltage ... ..	114	II	7
Voltage limit. Repeater power plant ... ..	334	III	314
Voltage. Maximum on international circuit ... ..	233	III	140
Nomenclature of international circuits ... ..	556	V	31
Non-linear distortion. (See "Distortion.")			
Numbers, enunciating subscribers' ... ..	587	V	81
<b>O</b> bservation of principal international circuits ... ..	620	V	131
Open-wire lines :			
Atmospheric conditions; Compensation... ..	270	III	208
Attenuation ... ..	272	III	210
" of repeater section for broadcast circuit ... ..	244	III	160
Balancing Networks: Construction ... ..	275	III	216
Broadcast transmission. General rules ... ..	244	III	160
Cable sections inserted in ... ..	270, 282, 284, 292	III	207, 229, 236, 249
Carrier equipment: Range ... ..	238	III	150
Carrier system: Questionnaire ... ..	240	III	153
Conductor resistance unbalance ... ..	270	III	206
Electrical characteristics ... ..	270	III	206
General characteristics ... ..	269	III	205
Impedance variation ... ..	271	III	208
Insulation ... ..	271	III	210
Loading ... ..	269	III	205
Mechanical characteristics ... ..	269	III	206
Noise voltage maximum on international circuit ... ..	233	III	140
Overall equivalent ... ..	270	III	207
Patrolling ... ..	272	III	211
Protection against power lines ... ..	271	III	209
Regularity attenuation ... ..	270	III	206
Setting up. General rules... ..	269	III	205

	English Page.	French Vol.	Page.
Open-wire lines :			
Stability ... ..	270	III	207
„ Calculation ... ..	273	III	212
Temperature correction ... ..	204, 271	III	87, 208
Test points ... ..	272	III	210
Transpositions ... ..	271, 273	III	209, 212
Wide band transmission ... ..	272	III	211
Operating and tariffs :			
Advice of subscribers waiting ... ..	592	V	89
Called subscriber's number changed ... ..	596	V	94
Definitions ... ..	551	V	21
Duration of speech tests ... ..	592	V	88
Equalisation of delay ... ..	588	V	82
Instructions concerning ... ..	551	V	21
Method ... ..	587	V	80
Passing of subscribers' numbers ... ..	587	V	81
Principal phrases to use ... ..	595	V	94
Questions for Study 6th and 7th C.R. ... ..	49	I	73
Rules for transit traffic ... ..	593	V	91
Spelling system ... ..	595	V	93
Telegraph preparation of call ... ..	588	V	83
Operating international circuits ... ..	587	V	80
Operators :			
Teams ... ..	460, 467	IV	214, 225
Training, and service instructions ... ..	597	V	96
Order wire :			
Not to be used ... ..	587	V	80
Organisations co-operating with C.C.I.F. Representatives ... ..	9	I	11
Oscillators :			
Carrier systems ... ..	237	III	148
Osmometre. Apparatus for gas detection ... ..	73	I	111
Palladium chloride indicator for gas in manholes ... ..	71	I	107
Pamphlet: International Telephony. Publication ... ..	568	V	51
Parasitic currents due to crosstalk. Question for Study 3rd C.R. Should factor similar to signal-to-noise ratio be used ... ..	32	I	46
Patrol service on international open-wire lines ... ..	272	III	211
Period :			
Definition ... ..	58	I	85
Natural ... ..	63	I	94
Periodic Tests. (See "Maintenance.")			
Personnel of telephone exchanges, Instructions for... ..	597	V	96
Phantoming of international circuits ... ..	176, 236	III	33, 146
Phase Constant. (See "Constant.")			
Phase Distortion. (See "Distortion.")			
Phrases :			
Test for different languages ... ..	354	IV	30
Used in maintenance of international circuits ... ..	509	IV	313
„ operating international circuits ... ..	595	V	94
Picture Telegraphy. (See "Telegraphy.")			
Power :			
Average acoustic ... ..	59	I	88
Average speech ... ..	61	I	91
Definition ... ..	178, 179	III	36, 38
Instantaneous speech ... ..	61	I	91



	English Page.	French Vol. Page.
Power:		
Peak speech ... ..	61	I 91
Phonetic speech ... ..	61	I 91
Maximum: Broadcast transmission ... ..	247, 249	III 166, 170
" Picture transmission ... ..	251	III 175
" Sub-audio telegraphy ... ..	307	III 267
" Super-audio telegraphy ... ..	308	III 268
" Telex ... ..	310	III 272
" V.F. telegraphy ... ..	309	III 270
Supply, repeaters, measurements ... ..	396	IV 101
" Variation limits ... ..	262, 263, 312	III 192, 195, 274
Power lines:		
Telephone circuits on, connection to public network ... ..	124	II 24
Unbalance to telephone lines ... ..	423	IV 147
Power plant:		
Repeater, specification ... ..	334	III 313
Press: Rates ... ..	601	V 102
Pressure:		
Effective sound ... ..	59	I 87
Instantaneous sound ... ..	59	I 87
Maximum sound ... ..	59	I 87
Peak sound ... ..	59	I 87
Static ... ..	59	I 87
Private Wire:		
International ... ..	583	V 74
" Rates ... ..	584	V 76
Maintenance ... ..	254	III 179
Propagation Constant. (See Constant.)		
Propagation time. Limits ... ..	200, 232	III 81, 140
Measurements ... ..	396	IV 102
Question for Study 3rd C.R. Filters for super and sub-audio telegraphy ... ..	29	I 40
Propagation speed:		
Calculation ... ..	328	III 307
Recommendations ... ..	232, 234	III 140, 142
Protection:		
Chemical corrosion ... ..	154	II 80
" Directives " (Guiding Principles) ... ..	113	II 5
" Sub-Committee ... ..	113	II 6
Electrolytic corrosion ... ..	133	II 47
Electrostatic formulae ... ..	113	II 6
Ideal device ... ..	126	II 27
Open-wire lines, against power lines ... ..	271	III 209
Power induction ... ..	113	II 5
Principles ... ..	125	II 26
Systems in use. Diagrams ... ..	130	II 34
Protective devices:		
Principal characteristics ... ..	127	II 28
Protective measures applicable to underground cable networks ... ..	140	II 60
" " " to traction networks ... ..	137	II 54
Protectors:		
Characteristics ... ..	126, 127	II 27, 28
Symbols ... ..	130	II 33
Psophometer:		
Calibration ... ..	118	II 14

	English Page.	French Vol.	Page.
<b>Psophometer :</b>			
Construction ... ..	118	II	14
Definition ... ..	183	III	45
Details required by C.C.I.F. ... ..	119	II	15
Existing. Operating and constructional details (Questionnaire) ... ..	119	II	15
Filter : Broadcast circuits ... ..	487	IV	258
„ Crosstalk measurements ... ..	413	IV	132
„ Telephone circuits ... ..	{ 116 485	II IV	11 252
General principles ... ..	484	IV	252
Impedance ... ..	118	II	14
Limits... ..	117	II	11
Measuring instrument ... ..	118	II	11
Method of use ... ..	{ 118 418, 486	II IV	15 138, 257
Sensitivity ... ..	118	II	14
Specification ... ..	{ 115 485	II IV	9 252
Table of graduations, C.C.I.F. and A.T. & T....	79	I	123
Weighting table ... ..	{ 116 485	II IV	10 253
<b>Psophometric E.M.F. :</b>			
Carrier circuit. Limit ... ..	239	III	151
Definition ... ..	{ 114 175	II III	7 29
Measurement ... ..	115	II	8
Sub-audio telegraphy ... ..	308	III	267
Super-audio telegraphy ... ..	309	III	269
V.F. telephony, effect on minimum permissible level ... ..	231	III	135
<b>Psophometric voltage :</b>			
Broadcast circuits ... ..	248	III	168
Broadcast repeater ... ..	267	III	201
Definition ... ..	114	II	7
Measurement ... ..	115	II	8
Submarine cable ... ..	278	III	222
Publicity expense ... ..	614	V	123
<b>Quad :</b>			
Capacity unbalances ... ..	176, 177	III	32, 34
Definition ... ..	176	III	31
<b>Quadripole :</b>			
Tests on ... ..	370	IV	57
Questionnaire. Carrier System on open-wire lines ... ..	240	III	153
Questions for Study. (See Commissions of Rapporteurs.)			
<b>Radio telephony. (See Circuit: Radio telephone.)</b>			
Rail joints. Measurement of resistance ... ..	138	II	56
Rate unit. Minimum duration. Question for Study 6th and 7th C.R. ... ..	49	I	73
<b>Rates :</b>			
Conference calls ... ..	600	V	101
General principles ... ..	564	V	43
International private wire ... ..	584	V	76
Method of application of rates ... ..	598	V	97
Picture transmission ... ..	610	V	116
Press ... ..	601	V	102

	English Page.	French Vol.	Page.
<b>Rates :</b>			
Question for Study 6th and 7th C.R. Assumed transit, emergency routes ... ..	50	I	74
" " " " Bourse calls. Revision ... ..	50	I	74
" " " " Préavis and Avis d'appel calls. Revision ... ..	50	I	74
" " " " Radio broadcast subscription calls. Revision ... ..	50	I	74
" " " " Subscription calls. Revision ... ..	50	I	73
" " " " Travellers, international. Concession ... ..	51	I	76
Rates and operating : Instructions concerning ... ..	551, 598	V	21, 97
Reactance : Acoustic ... ..	62	I	93
Reaction suppressors. (See "Echo Suppressors.")			
<b>Receiver :</b>			
Efficiency, measurement ... ..	428, 432	IV	157, 166
Question for Study 4th C.R. Methods of determining transmission characteristics...	48	I	71
Telephone ... ..	66	I	99
Receiving systems (and transmitting systems) relative efficiency ... ..	178	III	36
<b>Recommendations :</b>			
Co-existence of telephony and telegraphy ... ..	307	III	266
Co-ordination of radio-telephony and telephony ... ..	313	III	277
International circuits ... ..	269	III	205
List of, on transmission in European International Telephone Service ... ..	185	III	48
Long circuits ... ..	233	III	142
Repeater stations ... ..	267	III	191
Subscribers' installations, junction lines and telephone exchanges ... ..	253	III	177
Recording T.M.S. (See "Measuring Set.")			
<b>Rectifiers :</b>			
Reduction of disturbing voltage ... ..	122	II	20
Tests ... ..	122	II	21
Reference equivalent. (See "Equivalent.")			
<b>Reference system :</b>			
European master telephone transmission (SFERT) ... ..	{ 186 344	III IV	50 12
Question for Study 4th C.R. Direct measurement of effective transmission equivalent.			
Specification ... ..	38	I	56
SFERT : Regulation ... ..	350	IV	20
" Characteristic curves ... ..	351	IV	23
" Calibration of working standards ... ..	354, 361	IV	31, 43
" Calibration of SETAC ... ..	355, 361	IV	31, 43
" Calibration of SETEM ... ..	358, 361	IV	38, 43
SETAC : Description ... ..	363	IV	46
" Use ... ..	434	IV	168
SETEM : Description ... ..	366	IV	52
" Use ... ..	439	IV	180
Objects ... ..	344	IV	11
Types ... ..	344	IV	12
<b>Reference systems. Telephone transmission :</b>			
Artificial lines ... ..	346	IV	16
General conditions ... ..	344	IV	12
Impedance of artificial line ... ..	347	IV	16
Regulation of artificial line ... ..	348	IV	16
<b>Reference systems : Telephone transmission, receiving :</b>			
Acoustic output ... ..	348	IV	18
Efficiency regulation ... ..	348	IV	18
Impedance ... ..	348	IV	18
Method of construction ... ..	349	IV	19
Non-linear distortion ... ..	348	IV	19
Relation between electric voltage and acoustic pressure ... ..	348	IV	18
Schematic ... ..	346	IV	15

	English Page.	French Vol. Page.
Reference systems. Telephone transmission, sending :		
Acoustic input ... ..	345	IV 13
Condenser microphone ... ..	347	IV 17
Efficiency regulation ... ..	346	IV 13
Impedance ... ..	346	IV 13
Method of construction ... ..	346	IV 16
Non-linear distortion ... ..	346	IV 16
Relation between electric voltage and acoustic pressure ... ..	346	IV 13
Schematic ... ..	345	IV 14
Reference systems. Working standards :		
Calibration ... ..	350	IV 20
General considerations and recommendations ... ..	349	IV 19
Reference volume. Question for Study 4th C.R. Calibration of volume indicators ... ..	44	I 64
Reflection co-efficient :		
Carrier telephony. Limits ... ..	239	III 151
Definition ... ..	170	III 22
Limits... ..	232	III 139
Two-wire repeater, value ... ..	232, 262	III 139, 193
Four-wire repeater, value ... ..	263	III 196
Rental charge for superimposed telegraph circuit (Question for Study 7th C.R.)... ..	51	I 76
Renting to private services of international circuits. Revision (Question for Study 7th C.R.)... ..	51	I 76
Repeaters :		
Broadcast : Distortion ... ..	266	III 201
„ Frequency band ... ..	265	III 199
„ Gain frequency characteristics ... ..	244, 265	III 161, 199
„ Gain regulation ... ..	266	III 200
„ Gain variation with output power ... ..	266	III 199
„ General characteristics ... ..	265	III 199
„ Impedance ... ..	266	III 200
„ Noise limits ... ..	266	III 200
„ Output power ... ..	266	III 200
„ Psophometric voltage ... ..	266	III 201
„ Sound intensity ... ..	266	III 200
„ Valves ... ..	245	III 162
„ Variation between gain-frequency curve and circuit equivalent ... ..	245	III 161
General characteristics ... ..	261	III 191
Two-wire : Crosstalk ... ..	262	III 193
„ Distortion ... ..	262	III 194
„ Equalisation ... ..	262	III 192
„ Frequency band ... ..	261	III 192
„ Gain frequency characteristics ... ..	261	III 192
„ Gain regulation ... ..	261	III 192
„ General characteristics ... ..	261	III 191
„ Impedance ... ..	262	III 193
„ Maximum output power ... ..	263	III 194
„ Monitoring, general rules ... ..	262	III 193
„ Monitoring losses ... ..	262	III 193
„ Power supply, regulation and variation limits ... ..	262	III 192
„ Reflection co-efficient... ..	262	III 193
„ Singing point ... ..	{ 261 515	{ III 191 IV 324
Four-wire : Crosstalk ... ..	264	III 196
„ Distortion ... ..	264	III 197
„ Frequency band ... ..	263	III 195
„ Gain frequency characteristics ... ..	263	III 195

	English Page	French Vol.	Page.
Repeaters :			
Four-wire : Gain regulation ... ..	263	III	195
„ General characteristics ... ..	263	III	195
„ Impedance ... ..	263	III	195
„ Maximum output power ... ..	264	III	197
„ Monitoring : General rules ... ..	263	III	196
„ Monitoring : Losses ... ..	263	III	196
„ Power supply : Regulation and variation limits ... ..	263	III	195
„ Reflection co-efficient... ..	263	III	196
Carrier : Cross modulation ... ..	267	III	201
„ Equalisation ... ..	267	III	201
„ Gain regulation ... ..	267	III	201
„ General characteristics ... ..	267	III	201
„ Input and output level... ..	267	III	201
„ Insertion loss ... ..	267	III	201
„ Maximum gain ... ..	266	III	201
„ Testing equipment ... ..	267	III	201
Cord circuit : Advantages ... ..	256	III	183
„ „ Control by operators ... ..	257	III	184
„ „ General conditions ... ..	256	III	183
High Frequency. (" See Repeaters, Carrier ")			
Joining different types of cable : Correction of frequency distortion ... ..	264	III	197
„ „ „ „ Filters ... ..	265	III	199
Measurement of gain ... ..	382	IV	79
Measurement of power supply ... ..	396	IV	101
Pad switching. Advantages ... ..	256	III	183
Question for Study 3rd C.R. Long telephone circuits. Conditions... ..	30	I	44
Repeater section :			
Attenuation regularity ... ..	232	III	138
Broadcast circuit on open-wire lines ... ..	244	III	160
Frontier crossing. Method of co-operation ... ..	331	III	307
Specification ... ..	320	III	288
Repeater stations :			
Frontier level. Broadcast circuits ... ..	249, 250	III	169, 171, 173
„ „ V.F. telegraphy ... ..	311	III	273
„ „ V.F. telephony ... ..	229	III	133
Position of ... ..	261	III	191
Question for Study 3rd C.R. Cabling. Specification ... ..	48	I	72
Recommendations ... ..	261	III	191
Specification ... ..	332	III	310
Repetition rate :			
Definition ... ..	182	III	43
Measurement ... ..	472	IV	234
Reply of called stations, advising terminal exchange at calling end ... ..	592	V	89
Report charges in connection with radio telephone circuits ... ..	612	V	120
Resistance. Acoustic ... ..	62	I	93
Resonance :			
Amplitude ... ..	63	I	94
Note on different kinds ... ..	63	I	95
Velocity ... ..	63	I	93
Ringers, V.F. Essential clauses of specification ... ..	202	III	84
Routing :			
Emergency ... ..	565	V	45
„ Rates ... ..	566	V	46

	English Page.	French Vol.	Page.
Routing :			
Emergency, Extending radio telephone link : Rates ...	567	V	49
Form to be used ...	565	V	45
Safety lamps ...	69	I	104
SETAC. (See "Reference System.")			
SETEM. (See "Reference System.")			
SFERT. (See "Reference System.")			
SFERT Laboratory ...	543	V	9
Permanent commission ...	549	V	18
Personnel ...	549	V	18
Screened circuits :			
Broadcast transmission ...	245	III	161
Noise reduction ...	246	III	165
Magnetic induction ...	245	III	163
Sensation :			
Area, auditory ...	61	I	91
Level ...	61	I	90
Sensitivity co-efficient ...	120	II	17
Shock, acoustic. Protection of operators ...	123	II	22
Side band, suppressed ...	237, 240	III	148, 154
Side tone :			
Definition ...	180	III	40
Measurement ...	445	IV	191
Question to Study 4th C.R. Reference equivalent rules to determine mean volume...	37	I	55
Reference equivalent ...	181	III	41
Room noise ...	181	III	41
Speech ...	181	III	40
Signal to noise ratio ...	175	III	30
Question for Study 3rd and 4th C.R. Useful signal voltage. How to define ?	32	I	46
Signalling :			
Carrier circuits ...	239	III	152
Frequencies. General schematic ...	202	III	86
Frequency and level ...	201	III	82
Level. Limits ...	201	III	83
Singing, in connection with minimum losses on two- and four-wire circuits, A.T. & T. proposition	40	I	61
Singing margin :			
Definition ...	171	III	24
Measurement ...	391	IV	92
Singing point :			
Definition ...	171, 261	III	23, 191
Measurement ...	388, 391	IV	87, 93
Sound :			
Articulation ...	182	III	43
Energy, density ...	60	I	88
Intensity ...	60	I	88
Masking effect ...	61	I	90
Sound meter ...	183	III	45
Speaker, Loud ...	66	I	99
Specifications :			
General remarks ...	319	III	287
Repeaters. Broadcast ...	265	III	199
" Carrier current ...	266	III	201
" For joining different types of cable ...	264	III	197
" Two-wire ...	261	III	191

											English Page.	French Vol.	Page.
Specifications:													
Repeaters. Four-wire (V.F. telephony)	...	...	...	...	...	...	...	...	...	...	263	III	195
V.F. ringing equipment	...	...	...	...	...	...	...	...	...	...	202	III	84
Valves	...	...	...	...	...	...	...	...	...	...	267	III	202
Specifications, typical:													
Cables, crosstalk considerations	...	...	...	...	...	...	...	...	...	...	415, 416	IV	134, 136
Cable, factory lengths	...	...	...	...	...	...	...	...	...	...	320	III	288
Echo suppressors	...	...	...	...	...	...	...	...	...	...	334	III	313
Loading coils	...	...	...	...	...	...	...	...	...	...	324	III	297
Psophometer	...	...	...	...	...	...	...	...	...	...	{ 115 484	II IV	9 252
Repeater power plant	...	...	...	...	...	...	...	...	...	...	334	III	313
Repeater section of cable and its constituent parts	...	...	...	...	...	...	...	...	...	...	320, 326	III	288, 300
Repeater stations and constituent parts	...	...	...	...	...	...	...	...	...	...	332	III	310
Terminations	...	...	...	...	...	...	...	...	...	...	333	III	312
Transformers, Balanced, for Working Standards	...	...	...	...	...	...	...	...	...	...	365	IV	49
„ Line	...	...	...	...	...	...	...	...	...	...	332	III	310
Speech Power. (See also "Volume.")													
Definition	...	...	...	...	...	...	...	...	...	...	179	III	38
Instantaneous	...	...	...	...	...	...	...	...	...	...	61	I	91
Peak	...	...	...	...	...	...	...	...	...	...	61	I	91
Speed of answer on an international circuit...	...	...	...	...	...	...	...	...	...	...	554	V	26
Spelling and phrases for use in operating international circuits	...	...	...	...	...	...	...	...	...	...	595	V	93
Stability:													
Calculation	...	...	...	...	...	...	...	...	...	...	273, 280	III	212, 224
Definition	...	...	...	...	...	...	...	...	...	...	171	III	24
Margin of, definition	...	...	...	...	...	...	...	...	...	...	171	III	24
Measurement	...	...	...	...	...	...	...	...	...	...	388, 390, 391	IV	87, 91, 93
Overall	...	...	...	...	...	...	...	...	...	...	232	III	138
Open-wire lines	...	...	...	...	...	...	...	...	...	...	270	III	207
Picture transmission	...	...	...	...	...	...	...	...	...	...	252	III	176
Question for Study 4th C.R. Values with circuit under operating conditions and open ends	...	...	...	...	...	...	...	...	...	...	38	I	56
„ „ „ „ Normal value, on international circuit open ended...	...	...	...	...	...	...	...	...	...	...	38	I	56
Two four-wire circuits interconnected	...	...	...	...	...	...	...	...	...	...	236	III	147
Standards, Working. (See "Reference System.")													
Statistics, traffic:													
To be sent to C.C.I.F.	...	...	...	...	...	...	...	...	...	...	615	V	124
„ „ U.I.T.	...	...	...	...	...	...	...	...	...	...	617	V	127
Stiffness, acoustic...	...	...	...	...	...	...	...	...	...	...	63	I	93
Stock exchange installations:													
Direct junction circuits	...	...	...	...	...	...	...	...	...	...	256	III	182
Direct trunk circuits	...	...	...	...	...	...	...	...	...	...	255	III	181
General conditions	...	...	...	...	...	...	...	...	...	...	255	III	181
Signalling	...	...	...	...	...	...	...	...	...	...	255	III	181
Special operators at public exchanges	...	...	...	...	...	...	...	...	...	...	256	III	182
Strache's gasoscope. Gas detector	...	...	...	...	...	...	...	...	...	...	68	I	102
Structure, constant resistance	...	...	...	...	...	...	...	...	...	...	67	I	100
Subscribers:													
Apparatus. Conditions of connection to leased international circuits	...	...	...	...	...	...	...	...	...	...	253	III	177, 178
„ Not to overload international circuits	...	...	...	...	...	...	...	...	...	...	254	III	178
„ Question to Study 4th C.R. Conditions for use on international circuits	...	...	...	...	...	...	...	...	...	...	48	I	71

	English Page.	Vol.	French Page.
Subscribers :			
Apparatus. Tests ... ..	{ 253 428	III IV	177 157
Defaulting ... ..	614	V	122
Installations : Measurements from exchange ... ..	448	IV	194
" Recommendations... ..	253	III	177
Lines and instruments ... ..	253	III	177
List ... ..	568	V	49
Submarine Cables. (See "Cables, Submarine.")			
Suppressors, Echo. (See "Echo Suppressors.")			
Switching arrangements :			
France ... ..	220	III	117
General ... ..	184	III	47
Germany ... ..	206	III	92
Great Britain ... ..	210	III	100
Holland ... ..	224	III	126
U.S.A. ... ..	222	III	122
Symbols ... ..	{ 51 183	I III	76 45
System. Acoustic ... ..	66	I	99
" Carrier. (See "Carrier.")			
" Transmission ... ..	180	III	39
Tariffs, international telephone. Question to Study 6th and 7th C.R. Should these be revised			
Telecommunication Convention (Madrid, 1932) : Extract from Telephone Regulations...	49 541	I V	73 5
Telegraph service between two telephone subscribers ... ..	310	III	271
Telegraphy :			
Co-existence with telephony, recommendations ... ..	307	III	266
Frequencies. General schematic ... ..	202	III	86
Separate circuits in telephone cables ... ..	309	III	270
Telegraphy, picture :			
Attenuation distortion ... ..	251	III	175
Conditions of service and rates ... ..	610	V	116
Crosstalk and noise ... ..	252	III	176
Echo suppressors. Use ... ..	251	III	174
Equivalent and level ... ..	251	III	174
Marking of circuits ... ..	252	III	176
Maximum power ... ..	251	III	175
Phase distortion ... ..	251	III	175
Simultaneous transmission ... ..	251	III	174
Stability ... ..	252	III	176
Subscribers' installations used for ... ..	254	III	179
Telephone circuits used for ... ..	250	III	173
Two-wire circuits not admissible ... ..	250	III	174
Telegraphy, sub-audio :			
Crosstalk ... ..	308	III	268
Earth unbalance ... ..	308	III	268
Frequency band ... ..	237	III	148
General rules ... ..	307	III	267
Impedance ... ..	307	III	267
Increase of attenuation of telephone circuit by ... ..	307	III	267
Maximum E.M.F. ... ..	307	III	267
Maximum current ... ..	307	III	267
Noise ... ..	308	III	267
Psophometric, E.M.F. ... ..	308	III	267



	English Page.	French Vol.	Page.
Telegraphy, sub-audio :			
Question to Study 3rd C.R. What conditions should be imposed to protect personnel and equipment ... ..	32	I	47
Telegraphy, super-audio :			
Echo suppressors, by-passing ... ..	309	III	269
Frequencies to use ... ..	308	III	269
Frequency band ... ..	237	III	148
General rules... ..	308	III	268
Impedance ... ..	308	III	269
Increase of attenuation of telephone circuit by ... ..	308	III	269
Maximum power ... ..	308	III	268
Noise ... ..	308	III	269
Psophometric E.M.F. ... ..	308	III	269
Telegraphy, on superposed circuits :			
Crosstalk ... ..	309	III	270
General rules... ..	309	III	269
Telegraphy, telex :			
Crosstalk ... ..	310	III	272
Frequency ... ..	310	III	272
General principles ... ..	310	III	271
Impedance ... ..	310	III	272
Noise ... ..	310	III	272
Power ... ..	310	III	272
Telegraphy, V.F. :			
Battery variation ... ..	312	III	274
Circuits. General conditions ... ..	311	III	273
„ Maintenance ... ..	524	IV	339
„ Marking of ... ..	311	III	274
Four-wire circuits ... ..	311	III	273
General rules... ..	309	III	270
Loading ... ..	311	III	273
Maximum power ... ..	309	III	270
Overall equivalent ... ..	311	III	273, 275
Reserve circuits ... ..	312	III	274
Two-wire circuits ... ..	311	III	273
Telephone exchanges ... ..	253	III	177
Telephony :			
International, detailed arrangements for establishing ... ..	562	V	40
International, extension ... ..	561	V	39
Two Band. (See "Carrier.")			
V.F. frequency band ... ..	237	III	148
Temperature :			
Correction ... ..	204, 247, 270	III	87, 167, 208
Terminations, specification ... ..	333	III	312
Testing apparatus :			
Artificial voice and ear ... ..	498, 499	IV	281, 294, 295
Carrier circuit ... ..	239	III	152
Crosstalk ... ..	482	IV	250
Gain ... ..	481	IV	248
Impedance ... ..	481	IV	249
Impedance unbalance (with reference to earth) ... ..	488	IV	260

												English Page.	French Vol.	Page.
Testing apparatus :														
Impulse meter	...	...	...	...	...	...	...	...	...	...	...	491	IV	265
Insulation	...	...	...	...	...	...	...	...	...	...	...	477	IV	241
Level measuring	...	...	...	...	...	...	...	...	...	...	...	478, 479,	IV	243, 244
Noise. (See "Psophometer.")												480		246
Peak indicator	...	...	...	...	...	...	...	...	...	...	...	491	IV	266
Power supply	...	...	...	...	...	...	...	...	...	...	...	483	IV	251
Resistance	...	...	...	...	...	...	...	...	...	...	...	477	IV	242
Sound meter	...	...	...	...	...	...	...	...	...	...	...	500	IV	295
Transmission measuring	...	...	...	...	...	...	...	...	...	...	...	478, 479	IV	243, 244
" " Oscillators for	...	...	...	...	...	...	...	...	...	...	...	478	IV	243
" " Recording	...	...	...	...	...	...	...	...	...	...	...	480	IV	246
Valve ...	...	...	...	...	...	...	...	...	...	...	...	483	IV	251
Volume indicator	...	...	...	...	...	...	...	...	...	...	...	490	IV	263
" " comparison with SFERT	...	...	...	...	...	...	...	...	...	...	...	491	IV	266
Testing apparatus, high frequency :														
Level measuring	...	...	...	...	...	...	...	...	...	...	...	508	IV	310
Heterodyne receiver	...	...	...	...	...	...	...	...	...	...	...	507	IV	310
Noise meter	...	...	...	...	...	...	...	...	...	...	...	508	IV	311
Oscillator	...	...	...	...	...	...	...	...	...	...	...	507	IV	309
Transmission measuring	...	...	...	...	...	...	...	...	...	...	...	508	IV	310
Wheatstone bridge	...	...	...	...	...	...	...	...	...	...	...	508	IV	311
Testing methods	...	...	...	...	...	...	...	...	...	...	...	370	IV	57
Testing Points on international circuits	...	...	...	...	...	...	...	...	...	...	...	272	III	210
" " " " Restricting number	...	...	...	...	...	...	...	...	...	...	...	277	III	221
Threshold of audibility	...	...	...	...	...	...	...	...	...	...	...	60	I	89
Threshold of feeling	...	...	...	...	...	...	...	...	...	...	...	60	I	90
Time :														
Chargeable. (See "Chargeable Time.")														
Conversation	...	...	...	...	...	...	...	...	...	...	...	554	V	27
Holding	...	...	...	...	...	...	...	...	...	...	...	554	V	28
Hourly paid, ratio	...	...	...	...	...	...	...	...	...	...	...	555	V	29
Maximum waiting, ordinary international calls	...	...	...	...	...	...	...	...	...	...	...	555	V	30
Operating	...	...	...	...	...	...	...	...	...	...	...	555	V	28
Toll (Trunk) Exchanges. Question for Study 3rd C.R. Should equipment enable calling operator to supervise called subscriber														
to supervise called subscriber	...	...	...	...	...	...	...	...	...	...	...	36	I	53
Traction networks. Protective methods applicable	...	...	...	...	...	...	...	...	...	...	...	137	II	54
Traffic :														
Average working day	...	...	...	...	...	...	...	...	...	...	...	552	V	22
Circuits required. Determination	...	...	...	...	...	...	...	...	...	...	...	623	V	135
" " Forecast	...	...	...	...	...	...	...	...	...	...	...	623	V	136
International, decentralisation	...	...	...	...	...	...	...	...	...	...	...	555	V	29
Light, agreed hours. Standardisation	...	...	...	...	...	...	...	...	...	...	...	613	V	120
Statistics	...	...	...	...	...	...	...	...	...	...	...	615	V	124
Supervision of international telephone	...	...	...	...	...	...	...	...	...	...	...	620	V	131
Tramway network : Return current in	...	...	...	...	...	...	...	...	...	...	...	143	II	64
Transducer :														
All pass	...	...	...	...	...	...	...	...	...	...	...	67	I	100
Dissymmetrical and symmetrical	...	...	...	...	...	...	...	...	...	...	...	66	I	99
Loss or gain	...	...	...	...	...	...	...	...	...	...	...	{ 64	I	96
												{ 169	III	21
Passive	...	...	...	...	...	...	...	...	...	...	...	66	I	99

	English Page.	French Vol.	Page.
Transducer :			
Selective ... ..	67	I	100
Transfer constant... ..	{ 65 167	I III	97 18
Transferred charges for calls ... ..	581	V	72
Transformers :			
Balance. Specification for Working Standards ... ..	365	IV	49
Line. Specification ... ..	332	III	310
Tests ... ..	377	IV	70
Transient. (See "Distortion, Phase.")			
" Phenomena ... ..	201	III	82
Transit :			
Countries, guaranteed minimum traffic ... ..	602	V	104
International centres ... ..	555	V	29
Traffic. Operating rules ... ..	593	V	91
Transmission :			
Complex waves ... ..	179	III	37
Questions for Study 3rd, 4th and 5th C.R. ... ..	28	I	38
" " " 4th C.R. Quality: reduction of, due to limitation of band of frequencies ... ..	38	I	56
Sinusoidal waves in steady state... ..	178	III	36
Transmission, effective :			
Equivalent, measurement ... ..	470	IV	231
Music. Definition ... ..	200, 247	III	81, 166
Speech. Definition ... ..	200	III	81
Transmission Equivalent. (See "Equivalent.")			
Transmission impairment ... ..	182, 187	III	44, 52
Transmission measuring set. See ("Measuring set.")			
Transmission, picture. (See telegraphy picture.)			
Transmission standards ... ..	344	IV	11
Transmission systems :			
Broadcast transmission ... ..	244	III	160
Carrier current ... ..	236	III	147
General rules... ..	226	III	129
Ordinary telephony ... ..	226	III	129
Picture transmission ... ..	250	III	173
Transmission, telephone :			
General principles ... ..	184	III	47
Index to recommendations ... ..	185	III	48
Standard of quality ... ..	185	III	48, 49
Table of characteristics affecting ... ..	186	III	51
Transmitter :			
Efficiency, measurement ... ..	428, 432	IV	157, 166
Harmonic distortion, measurement ... ..	431	IV	164
Microphone ... ..	66	I	98
Transmitting and receiving systems :			
Relative efficiency ... ..	178	III	36
Transpositions :			
Definitions ... ..	177	III	35
Power line. Effect of ... ..	122	II	21
Trunk :			
Exchanges ... ..	256	III	183
Offering, provision ... ..	258	III	185
Tube Vacuum. (See "Valve.")			

# Unbalance, capacity. (See Capacity Unbalance.)

## Unbalance :

Distributed, of a telephone line with respect to earth : noise ratio	...	...	...	...	...	...	...	...	...	120	II	17
Impedance, with reference to earth	...	...	...	...	...	...	...	...	...	120	II	17
Localised, with reference to earth, measurement	...	...	...	...	...	...	...	...	...	121	II	18
Resultant, to power lines	...	...	...	...	...	...	...	...	...	421, 488	IV	144, 260
Sheath	...	...	...	...	...	...	...	...	...	423	IV	147
	...	...	...	...	...	...	...	...	...	177	III	34

## Unbalances :

Definitions	...	...	...	...	...	...	...	...	...	...	175	III	30
To earth	...	...	...	...	...	...	...	...	...	...	175	III	31

## United States of America :

Switching programme	...	...	...	...	...	...	...	...	...	...	222	III	122
---------------------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

## Unloaded cable :

Use	...	...	...	...	...	...	...	...	...	...	234, 235	III	142, 145
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----------	-----	----------

## Urban lines and exchanges

	...	...	...	...	...	...	...	...	...	...	253	III	177
--	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

# V.F. Telegraphy. (See "Telegraphy V.F.")

## V.F. Telephony. (See "Telephony.")

## V.F. Ringing Equipment :

Specification	...	...	...	...	...	...	...	...	...	...	202	III	84
---------------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----

## Vacuum Tube. (See "Valve.")

## Valve :

Broadcast repeaters, maximum power	...	...	...	...	...	...	...	...	...	...	245	III	162
Output, maximum	...	...	...	...	...	...	...	...	...	...	230, 235	III	135, 145
Noise	...	...	...	...	...	...	...	...	...	...	173	III	27
Specifications...	...	...	...	...	...	...	...	...	...	...	267	III	202
Tests	...	...	...	...	...	...	...	...	...	...	396	IV	101

## Ventilation and lighting of manholes

	...	...	...	...	...	...	...	...	...	...	58, 69	I	85, 103
--	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	--------	---	---------

## Vibration, free and forced

	...	...	...	...	...	...	...	...	...	...	63	I	94
--	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	---	----

## Vocabulary :

Acoustic	...	...	...	...	...	...	...	...	...	...	58	I	85
----------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----	---	----

## Voice-ear tests :

General remarks	...	...	...	...	...	...	...	...	...	...	433	IV	167
Precautions	...	...	...	...	...	...	...	...	...	...	441	IV	183

## Voltage :

Disturbing, reduction by rectifiers	...	...	...	...	...	...	...	...	...	...	122	II	20
Equivalent disturbing, objective measurement	...	...	...	...	...	...	...	...	...	...	120	II	17
Microphone terminals	...	...	...	...	...	...	...	...	...	...	179	III	37

## Volume :

Broadcast transmission. Limits	...	...	...	...	...	...	...	...	...	...	247, 249	III	166, 170
Definition	...	...	...	...	...	...	...	...	...	...	178, 180	III	36, 39
Indicator	...	...	...	...	...	...	...	...	...	...	180	III	39
Indicator, calibration	...	...	...	...	...	...	...	...	...	...	354	IV	29
Indicator, characteristics	...	...	...	...	...	...	...	...	...	...	179	III	38
Measurement	...	...	...	...	...	...	...	...	...	...	433	IV	167
Types of apparatus	...	...	...	...	...	...	...	...	...	...	180	III	39
Meter. Calibration	...	...	...	...	...	...	...	...	...	...	433	IV	167
Normal, for telephonometric tests	...	...	...	...	...	...	...	...	...	...	354	IV	29

		<i>English Page.</i>	<i>French Vol.</i>	<i>Page.</i>
Volume:				
Question for Study 5th C.R. Regulators automatic : what are the characteristics of ? ...		31	I	44
<b>W</b> aiting times : Equalising, in both directions (operating) ... ..		583	V	82
Weighting curve for filters in noise measuring apparatus for broadcast circuits (Question for Study 3rd, 4th and 5th C.R.) ... ..		31	I	45
<b>Z</b> one : Terminal traffic ... ..		227	III	131