

PART II

Recommendations D.300 | to D.606 |

RECOMMENDATIONS FOR REGIONAL APPLICATION

STANDARD RATES APPLICABLE IN THE

INTERNATIONAL TELECOMMUNICATION SERVICES

NOTE

The geographical scope of the Recommendations of this Part is normally limited, in the plan of the CCITT, to the region concerned which is generally specified in the title of the Recommendation. Naturally the Recommendations may be considered by Administrations of other regions as useful material for information and comparison, particularly for the purpose of international tariff studies.

MONTAGE : PAGE 226 = BLANCHE

SECTION 1

RECOMMENDATIONS APPLYING IN EUROPE AND THE MEDITERRANEAN BASIN

Recommendation D.300 |

DETERMINATION OF ACCOUNTING RATE SHARES AND COLLECTION CHARGES IN TELEPHONE RELATIONS BETWEEN COUNTRIES IN EUROPE

AND THE MEDITERRANEAN BASIN

Introduction

When, in full exercise of their sovereignty, the Administrations of the countries of Europe and the Mediterranean Basin negotiate among themselves agreements for determining the accounting rate shares and when they fix the collection charges to be applied in their telephone relations, it is recommended that they take into consideration:

- for the determination of accounting rate shares and accounting rates , the provisions of § 2 (Determination of accounting rates) of this Recommendation;
- for fixing the collection charges , the provisions contained in § 3 of this Recommendation;
- for fixing tariffs for frontier relations , the provisions contained in § 4 of this Recommendation.

In accordance with Article 30 of the *International Telecommunication Convention* , Nairobi, 1982, the standard rates given in this Recommendation are expressed in the monetary unit of the International Monetary Fund (IMF), the Special Drawing Right (SDR) , and in gold francs (G. Fr.).

1 Explanation of some of the terms used in this Recommendation

An explanation of some of the terms used in this Recommendation is given in Recommendation D.000.

2 Determination of accounting rate in telephone relations between countries in Europe and the Mediterranean Basin

2.1 *General*

2.1.1 Since the setting up of any international call involves both the international network and the national networks of the terminal countries, the accounting rate share due to each country is derived from three basic elements, to which separate standard rates are applied:

Countries in the Mediterranean Basin are countries not belonging to Europe but bordering the Mediterranean Sea.

- the *line* (transmission) part of the international network, which includes the various transmission systems used and is a function of the distance;
- the international exchange , i.e. the *switching* part of the international circuit, plus the terminal transmission equipment;
- the *national extension* , which denotes that part of the national network of each terminal country involved in completing the connection.

2.1.2 In special cases where the *line* (transmission) part of an international connection is:

- a tropospheric scatter link, or
- a radio link,

the provisions of this Recommendation with regard to the determination of an accounting rate share in relation to the length of the international circuit are not applicable and accounting rate shares should be agreed upon between the Administrations concerned.

Cases in which the *line* (transmission) part of a connection is a satellite link are dealt with in Annex D to this Recommendation.

2.1.3 When a reduced rate is introduced in a given relation, the accounting rates remain fixed in accordance with the provisions below, except in the case of special agreement. Each Administration of origin will determine the collection charges for its outgoing traffic.

2.2 *Charging zones*

For calculating accounting rate shares, each country may be divided into charging zones. If need be, different charging zones may be fixed in a given country for traffic exchanged with different countries.

It is desirable that the number of charging zones for international traffic, in any one country, should be reduced to a minimum. As a general rule, in services between non-adjacent countries, each country should constitute one single zone.

2.3 *Calculation of distances (line part)*

2.3.1 *Distances to be taken into consideration*

2.3.1.1 *General case*

2.3.1.1.1 In determining the share payable to a country for the use of international circuits, the distance to be taken into consideration is:

in a terminal country

- the *crowflight distance* | etween:
 - a) the point at which the international circuit crosses the frontier, and
 - b) the international exchange at which the circuit terminates;

in a transit country

— the *crowflight distance* | between the two frontier points at which the international circuit enters and leaves the country in question.

2.3.1.1.2 The same provisions apply to the determination of crowflight distances for groups, supergroups, master-groups and supermastergroups.

The above provisions for the calculation of distances apply to international circuits both on land cables and on radio-relay links.

2.3.1.2 *Special cases*

2.3.1.2.1 *Radio-relay links crossing the sea or a third country*

When a frontier is crossed by a radio-relay section of an international circuit passing over a third country or over the sea, without an intermediate relay station, the frontier point for measuring the circuit length shall be the point midway between the two relay stations on either side of the frontier.

2.3.1.2.2 *Submarine cables*

With regard to international circuits which are routed in submarine cables, the distance to be used for accounting will be calculated as follows:

- a) for the land section of the circuit to the submarine cable station, the distance shall be calculated in accordance with the general principles (i.e. the crowflight distance), it being assumed that the point at which the circuit crosses the frontier is the cable station;
- b) for the submarine cable section, the distance used shall be the actual route distance between the submarine cable stations as determined and agreed by the joint owners of the cable; the distance will be divided appropriately (normally 50/50) between the countries at the extremities of the cable.

2.3.1.2.3 *Special itineraries*

In exceptional circumstances, multiplication factors may be applied to the crowflight distance, from which the terminal and transit shares are calculated, to take account of special itineraries. For example, in the case of a direct transit country, the crowflight distance between the points on the frontier at which the circuit enters and leaves the country may (in exceptional circumstances) be replaced by a length representing the sum of two crowflight segments making up a broken line, etc.

2.3.2 *Possibility of weighting distances*

For calculation of the crowflight distances for the international section a weighting according to the number of circuits is normally applied in a given relation to simplify accounting:

- when there are several international arteries with different itineraries terminating at an international exchange;
- when there are several international exchanges in a country for the relation concerned.

This weighting serves to determine a length (crowflight distance) for fixing the accounting rate share relating to the international section and it would remain in force as long as the structure of the network was not significantly changed. This length of the international section would then be used to fix the *international section* element for the charges for international telephone and telegraph circuits, groups, supergroups, mastergroups and supermastergroups.

2.3.3 *Rounding off distances*

2.3.3.1 Distances less than 50 km shall be rounded up to 50 km.

Example: | distance of 24 km rounded up to 50 km.

2.3.3.2 Other distances shall be rounded to the nearest multiple of 50 km.

Examples:

- distance of 72 km rounded to 50 km;
- distance of 126 km rounded to 150 km;
- distance of 175 km rounded to 200 km.

2.3.3.3 This rounding rule applies to the distances in each of the terminal countries and in each of the transit countries and is applied to the total distance calculated for any one country. It is applicable to the remuneration of

Administrations both on the basis of a flat-rate price for the facilities made available and on the basis of traffic units.

2.3.3.4 When distances are weighted in accordance with the provisions of § 2.3.2 above, the rounding shall be applied only after the weighted distance has been calculated.

2.3.4 *Existence of several routes in a given relation*

When in a given relation there are several routes traversing different countries, these transit countries shall in all cases receive the share or flat-rate price normally due to them for the distance between the points of entry and exit; any cost of equalizing collection charges in a relation comprising different routes shall be borne solely by the Administration of the country of origin and no deduction shall be made from the remuneration due to the transit countries.

2.4 *Standard rates to be applied for international accounting*

For international accounting purposes, there are two methods of remuneration for the facilities made available by Administrations:

- on the basis of traffic units;
- on the basis of a flat-rate price for the facilities made available.

2.4.1 *Remuneration on the basis of traffic units*

To determine the accounting rate shares due to each country, the following standard rates, *per minute of conversation time*, are recommended:

Use of charged time for international accounting instead of conversation time According to their equipment, some Administrations may have to use charged time data for international accounts instead of conversation time, the charged time being given, for example, by the operator's ticket. In such a case, the Administration of origin will consult the Administration of destination and, when necessary, the Administration of transit countries, to see whether it is necessary to adjust the number of minutes entered in the international accounts to make allowance for the small difference which may exist between the charged time they use and the conversation time they should use for accounting according to Recommendation D.150 and the present Recommendation.

2) *National extension*

An amount may be added to cover the costs of the extension of calls over the national network.

Taking into account:

— the (weighted average) number of national exchanges by which an outgoing or incoming international call is routed,

The cost of international telecommunication circuits should be expressed in the form $A + B \times \frac{f \Pi}{100}$. A represents all costs relating to terminal transmission equipment *for one end of the international circuit*, B represents the costs per 100 km (crowflight distance) of the circuit.

— the (weighted average) number of terminal transmission equipments (component A) by which an outgoing or incoming international call is routed,

— the (weighted average) crowflight length of the national circuit used for setting up an outgoing or incoming international call,

— the cost per minute of use of a national exchange in an international call,

— the cost per minute of use of a terminal transmission equipment (component A) in an international call;

— the cost per minute of use of 100 km (crowflight) of national circuit in an international call,

— the administrative cost per minute of an outgoing or incoming international call.

Administrations are recommended, when determining the remuneration of their national extension per minute of international call, not to exceed the maximum values indicated below:

a) for outgoing traffic: 0.131 SDR or 0.40 G. Fr.;

b) for incoming traffic: 0.114 SDR or 0.35 G. Fr.

2.4.2 *Remuneration on the basis of a flat-rate price for the facilities made available*

2.4.2.1 *Remuneration of a direct transit country*

2.4.2.1.1 To determine the flat-rate price for remuneration for the transmission facilities made available by Administrations, the following standard rates are recommended.

2.4.2.1.2 When a circuit leased to a private user passes through a direct transit country, the Administration of this country will be remunerated by the Administrations of the terminal countries with a flat-rate price on the same basis as if the circuit were an ordinary public service circuit applying the rates in § 2.4.2.1.1 above.

The same rule applies to the lease to a private user of groups, supergroups, etc.

2.4.2.2 *Remuneration of a country of destination*

To determine the flat-rate price for remuneration of countries of destination for facilities made available by Administrations, the following standard rates are recommended:

[T3.300], p.

4) The remuneration for terminal transmission equipment has been included in the above rates [2) of § 2.4.2.2] based on annual costs per extremity of:

- 9800 SDR or 30 | 00 G. Fr. for a supermastergroup;
- 5227 SDR or 16 | 00 G. Fr. for a mastergroup;
- 2189 SDR or 6 | 00 G. Fr. for a supergroup;
- 1045 SDR or 3 | 00 G. Fr. for a group;
- 425 SDR or 1 | 00 G. Fr. for a circuit.

2.4.3 All the amounts given in § 2 above are reproduced in the three tables in Annexes A, B and C.

2.5 *Remuneration for facilities made available for the extension of intercontinental circuits*

In principle the rates mentioned in § 2 above apply also to the remuneration of facilities made available for the extension of intercontinental cable or satellite circuits.

2.6 *Extension of submarine cables*

For the extension of submarine cables through their national territory, Administrations may offer to countries using such submarine cables alternative charging conditions in the form of special transit charges called “rights of way” (ROW). One specific “ROW” charging method is described in Annex E to this Recommendation, but it is recognized that other “ROW” charging methods, the composition and method of application of which shall be determined by bilateral agreement, could be offered by direct transit countries.

3 Determination of collection charges in telephone relations between countries in Europe and the Mediterranean Basin

3.1 *General*

The establishment of the collection charge is a national matter. Whilst, in general, Administrations correlate collection charges and accounting rates, the two will not necessarily be the same for a number of reasons, for example:

- a) in most countries, collection charges and accounting rates will be expressed in different currencies;
- b) collection charges and accounting rates may be based on different traffic units;
- c) the value of national currencies may fluctuate in relation to the SDR or the gold franc;
- d) collection charges may be influenced by government fiscal policies;
- e) Administrations frequently establish common collection charges for geographical zones or groups of countries;
- f) in many relations there will be different routes with different accounting rates to which a single collection charge will be applied.

3.2 *Charging zones*

For fixing collection charges each country may be divided into charging zones. If need be, different charging zones may be fixed in a given country for traffic exchanged with different countries.

It is desirable that the number of charging zones for international traffic, in any one country, should be reduced to a minimum. As a general rule, in services between non-adjacent countries, each country should constitute one single zone.

The fixing of zones for collection charges does not imply the same for zones for accounting rate shares which can be weighted appropriately to make allowances for a zonal structure. Similarly, the fixing of zones for accounting rate shares (§ 2.2) does not imply any requirement for fixing zones for collection charges.

3.3 *Determination of collection charges*

3.3.1 The collection charge, in principle, should be the equivalent in national currency of the accounting rate. If, taking into account the factors in §§ 3.1 and 3.2 above, an Administration wishes to fix a collection charge at a higher or lower amount than the direct equivalent of the accounting rate, this Administration may apply a multiplication factor K. This factor K should not be more than 1.8 when applied to the total accounting rate in the relation concerned.

As a general principle, Administrations should make every effort to avoid too large a dissymmetry between the collection charges applicable in each direction of the same relation and should endeavour to agree upon application of the same factor K. Collection charges should be fixed at reasonable levels and the factor $K = 1.8$ is a maximum which should not be automatically applied. The factor K may be different for the different relations operated by an Administration.

Note — It is emphasized that the application of a factor K should not affect international accounting.

3.3.2 In considering the collection charges for a relation in which automatic and semi-automatic working both exist, each Administration should decide to fix its charges:

- either by establishing different charges for each method of operation;
- or by establishing a single collection charge weighted according to the volume of each type of traffic.

3.3.3 To recover the costs of operator assistance, Administrations may levy additional charges per call, the level of which is a national matter.

4 Frontier relations between countries in Europe and the Mediterranean Basin

The conditions governing the establishment and operation of frontier relations depend largely on the structure of the national networks in the frontier areas. These conditions tend to alter, particularly as a result of network automation, which leads in turn to automation of frontier relations. Consequently, the collection charges applied to these relations are tending to become increasingly subject to the limitations imposed by the automatic charging equipments used. The collection charges and accounting rates to be applied to frontier relations should therefore be fixed by agreement between the Administrations concerned.

Whenever the situation permits, there should be no exchange of international accounts for frontier calls, the entire charge being retained by the Administration which collects it. The latter should, however, supply all frontier traffic information required to the Administration of the country of destination.

Blanc

ANNEX A
(to Recommendation D.300 R)

Standard rates to be applied in Europe and the Mediterranean Basin
in determining accounting rate shares in the telephone service
(traffic unit basis)

[T4.300], p.

Table [T5.300], p.

ANNEX B
(to Recommendation D.300 R)

Standard rates to be applied in Europe and the Mediterranean Basin

**in remuneration for transmission facilities
made available by Administrations in a direct transit country
(flat-rate price basis)**

[T6.300], p.

ANNEX C
(to Recommendation D.300 R)

Standard rates to be applied in Europe and the Mediterranean Basin

**in remuneration for facilities made available between
Administrations in a destination country**
(flat-rate price basis)

[T7.300], p.

ANNEX D
(to Recommendation D.300 R)

**Remuneration for the facilities used to set up
telephone-type satellite circuits (Intelsat system)
via an earth station in Europe and the Mediterranean Basin**

D.1 *Flat-rate charges for the provision of telephone-type circuits set up via a foreign European earth station*

Preliminary note

The charges are the same, whether the telephone-type circuit is used in an intra-European or an intercontinental relation.

When an Administration operates a direct satellite telephone-type circuit set up via a foreign European earth station, the following standard rates are recommended for the remuneration of the facilities provided by the country operating the earth station:

D.1.1 for the remuneration of the international circuit section between the border of the outgoing terminal country and the international exchange of the country operating the earth station :

— in accordance with the standard rates set out in § 2.4.2.2, 1) of this Recommendation, 392 SDR or 1200 G. Fr. per 100 km of transmission channel (*line* part) per annum;

The cost of international telecommunication circuits should be expressed in the form $A + B \times \frac{fll}{00}$. A | represents all costs relating to terminal transmission equipment *for one end of the international circuit*, B | represents the costs per 100 km (crowflight distance) of the circuit.

— where appropriate, the amount laid down in § 2.4.2.2, 4) of this Recommendation, to pay for the terminal equipment (component A) in the international exchange.

D.1.2 for the remuneration of the earth station and the national extension from the international exchange mentioned in § D.1.1, above, to that station:

— 9800 SDR or 30 | 00 G. Fr. per telephone-type circuit and per annum.

D.1.3 for the remuneration of the space segment, the amount fixed by Intelsat and usually payable directly to that organization.

D.2 *Traffic unit price applicable in telephone relations between countries of Europe and the Mediterranean Basin, for traffic routed via satellite links*

Preliminary note

The same standard rates are used to determine the accounting rate shares payable to terminal and transit (switched transit) countries.

Part of the circuits provided at the expense of the Administration operating the earth station.

D.2.1 *Routing via satellite links only* |

When, in a given relation, all traffic is routed using international satellite links, the terrestrial distance between the respective international terminal or transit exchanges is disregarded. The costs to be taken into account for determining the terminal or transit shares relating to the use of the link are:

— the cost of the earth station and the national terrestrial extension to the international exchange in the same country (including a component *A*) in the exchange);

— the cost of the space segment.

The accounting rate shares applicable per minute are as follows:

— for the earth station and the national terrestrial extension to the international exchange in the same country (including a component *A*) in the exchange): 0.15 SDR or 0.46 G. Fr.

— for the space segment: 0.06 SDR or 0.18 G.Fr.

The figures in § D.2.1 were calculated using 65 | 00 minutes per circuit.

When, in a given relation, international traffic is routed via both satellite and terrestrial links, account should be taken of the provisions of § 2.3 of Recommendation D.300 R concerning the calculation of terrestrial circuit distances, as well as of the cost elements involved in satellite routing specified in § D.2.1 above. When these two components have been calculated separately, a weighting factor based on the number of circuits set up on each transmission medium is applied to determine the transmission (*line part*) element of the accounting rate.

Note — To take account of the relatively low utilization factor of certain earth stations, a correction factor may be applied to the standard rates given in the present Annex D by the Administrations owning the stations concerned.

ANNEX E
(to Recommendation D.300 R)

Special charging conditions for the extension of submarine cables

(§ 2.6 of this Recommendation)
**Example of an agreement on the
purchase of rights of way**

A bilateral agreement between Administrations for the purchase of rights of way may, for example, be included on the following basis:

a) *Contract aspects*

Under such an agreement, the Administrations or operating agencies concerned would be granted rights of way across a national territory on the basis of a contract concluded for a fixed period, such as for fifteen years, and renewable on expiry. In the event of withdrawal of the cable from service, an option for repurchase of the rights of way could be included.

The rights of way could be granted in accordance with needs expressed, and the timetable for granting them need not be linked to that for the purchase of circuits in the submarine cable.

Note — The contract would not cover dedicated facilities; the Administration or agency granting rights of way could, if necessary, use all the facilities of its network to provide for the extension of submarine cable circuits on its territory.

b) *Financial aspects*

Purchase of rights of way through a national network would be calculated, for each terminal Administration, in relation to half the crowflight distance between the submarine cable landing point and the border crossing point of the transit Administration.

Payment for rights of way by each terminal country could consist of:

— a flat-rate price for the initial assignment per circuit and per kilometre, determined on the basis of the average cost per kilometre of the telecommunication arteries of the national network concerned;

— an annual maintenance and operation charge fixed on a flat-rate basis at a percentage of the initial assignment rate corresponding to the level of maintenance and operation costs incurred by the Administration concerned.

Tariff rebates could be granted for groups of circuits purchased at the same time, under the conditions set out in § 2.4.2.1 of this Recommendation.

Blanc

**DETERMINATION OF ACCOUNTING RATE SHARES AND COLLECTION CHARGES
IN TELEX RELATIONS BETWEEN COUNTRIES
IN EUROPE AND THE MEDITERRANEAN BASIN**

Introduction

When, in full exercise of their sovereignty, the Administrations of the countries of Europe and the Mediterranean Basin negotiate among themselves agreements for determining the accounting rate shares and when they fix the collection charges to be applied in their telex relations, it is recommended that they take into consideration:

— for the determination of accounting rate shares and accounting rates , the provisions of § 2 of this Recommendation;

— for fixing the collection charges , the provisions contained in § 3 of this Recommendation.

In accordance with Article 30 of the *International Telecommunication Convention* , Nairobi, 1982, the standard rates given in this Recommendation are expressed in the monetary unit of the International Monetary Fund (IMF) which is the Special Drawing Right (SDR) and in gold francs (G. Fr.).

1 Explanation of some of the terms used in this Recommendation

An explanation of some of the terms used in this Recommendation is given in Recommendation D.000.

2 Determination of accounting rates in telex relations between countries in Europe and the Mediterranean Basin

2.1 *General*

2.1.1 Since the setting up of any international call involves both the international network and the national networks of the terminal countries, the accounting rate share for each country is derived from three basic elements, to which separate standard rates are applied:

— the *line* (transmission) part of the international network, which includes the various transmission systems used and is a function of the distance;

— the international exchange , i.e. the *switching* part of the international circuit, plus the terminal transmission equipment;

— the *national extension* , which denotes that part of the national network of each terminal country involved in completing the connection.

Countries in the Mediterranean Basin are countries not belonging to Europe but bordering the Mediterranean Sea.

2.1.2 In special cases where the *line* (transmission) part of an international connection is:

- a tropospheric scatter link, or
- a radio link,

the provisions of this Recommendation with regard to the determination of an accounting rate share in relation to the length of the international circuit are not applicable and accounting rate shares should be agreed upon between the Administrations concerned.

Cases in which the *line* (transmission) part of a connection is a satellite link are dealt with in Annex D to this Recommendation.

2.2 Calculation of distances (line part)

2.2.1 Distances to be taken into consideration

2.2.1.1 General case

In determining the share payable to a country for the use of international circuits, the distance to be taken into consideration is, in principle:

in a terminal country

- the *crowflight distance* | between:
 - a) the point at which the international circuit crosses the frontier, and
 - b) the international exchange at which the circuit terminates;

in a transit country

— the *crowflight distance* | between the two frontier points at which the international circuit enters and leaves the country in question.

The above provisions for the calculation of distances apply to international circuits both on land cables and on radio-relay links.

2.2.1.2 Special cases

2.2.1.2.1 Radio-relay links crossing the sea or a third country

When a frontier is crossed by a radio-relay section of an international circuit passing over a third country or over the sea, without an intermediate relay station, the frontier point for measuring the circuit length shall be the point midway between the two relay stations on either side of the frontier.

2.2.1.2.2 Submarine cables

With regard to international circuits which are routed in submarine cables, the distance to be used for accounting will be calculated as follows:

- a) for the land section of the circuit to the cable station, the distance shall be calculated in accordance with the general principles (i.e. the *crowflight distance*), it being assumed that the point at which the circuit crosses the frontier is the cable station;
- b) for the submarine cable section, the distance used shall be the actual route distance between the submarine cable stations, as determined and agreed by the joint owners of the cable; the distance will be divided appropriately (normally 50/50) between the countries at the extremities of the cable.

2.2.1.2.3 Special itineraries

In exceptional circumstances, multiplication factors may be applied to the crowflight distance, from which the terminal and transit charges are calculated, to take account of special itineraries. For example, in the case of a direct transit country, the crowflight distance between the points on the frontier at which the circuit enters and leaves the country may (in exceptional circumstances) be replaced by a length representing the sum of two crowflight segments making up a broken line, etc.

2.2.2 *Possibility of weighting distances*

For calculation of the crowflight distances for the international section a weighting according to the number of circuits is normally applied in a given relation to simplify accounting:

- when there are several international arteries with different itineraries terminating at an international exchange;
- when there are several international exchanges in a country for the relation concerned.

This weighting serves to determine a length (crowflight distance) for fixing the accounting rate shares relating to the international section and it would remain in force as long as the structure of the network was not significantly changed. The length of the international section would then be used to fix the *international section* element for the shares for international telex circuits.

2.2.3 *Rounding off distances*

2.2.3.1 Distances less than 50 km shall be rounded up to 50 km.

Example: | distance of 24 km rounded up to 50 km.

2.2.3.2 Other distances shall be rounded off to the nearest multiple of 50 km.

Examples:

- distance of 72 km rounded off to 50 km;
- distance of 126 km rounded off to 150 km;
- distance of 175 km rounded off to 200 km.

2.2.3.3 This rounding rule applies to the distances in each of the terminal countries and in each of the transit countries and is applied to the total distance calculated for any one country. It is applicable to the remuneration of Administrations both on the basis of a flat-rate price for the facilities made available and on the basis of traffic units.

2.2.3.4 When distances are weighted in accordance with the provisions of § 2.2.2, the rounding shall be applied only after the weighted distance has been calculated.

2.2.4 *Existence of several routes in a given relation*

When in a given relation there are several routes traversing different transit countries, these transit countries shall in all cases receive the share or flat-rate price normally due to them for the distance between the points of entry and exit; any cost of equalizing collection charges in a relation comprising different routes shall be borne solely by the Administration of the country of origin and no deduction shall be made from the remuneration due to the transit countries.

2.3 *Standard rates to be applied for international accounting*

For international accounting purposes there are two methods of remuneration for the facilities made available by Administrations:

- on the basis of traffic units;
- on the basis of a flat-rate price for the facilities made available.

2.3.1 *Remuneration on the basis of traffic units*

To determine the accounting rate shares for each country, the following standard rates, *per minute of telex call*, are recommended:

Table [T2.301], p.

2) *National extension*

An amount may be added to cover the cost of the extension of calls over the national network, taking into account:

— the (weighted average) number of national exchanges by which an outgoing or incoming international call is routed,

The cost of international telecommunication circuits should be expressed in the form $A + B \times \frac{fL}{100}$. A represents all costs relating to terminal transmission equipment *for one end of the international circuit*; B represents the costs per 100 km (crowflight distance) of the circuit.

— the (weighted average) number of terminal transmission equipments (component A) by which an outgoing or incoming international call is routed,

— the (weighted average) crowflight length of the national circuit used for setting up an outgoing or incoming international call,

— the cost per minute of use of a national exchange in an international call,

— the cost per minute of use of a terminal transmission equipment (component A) in an international call,

— the cost per minute of use of 100 km (crowflight) of national circuit in an international call,

— the administrative cost per minute of an outgoing or incoming international call.

Administrations are recommended, when determining the remuneration of their national extension per minute of international call, not to exceed the maximum values indicated below:

- a) for outgoing traffic: 0.088 SDR or 0.27 G. Fr.;
- b) for incoming traffic: 0.082 SDR or 0.25 G. Fr.

2.3.2 *Remuneration on a basis of flat-rate price for the facilities made available*

2.3.2.1 *Remuneration of a direct transit country*

2.3.2.1.1 To determine the flat-rate price for remuneration for the transmission facilities made available by Administrations, the following standard rates are recommended:

[T3.301], p.

2.3.2.1.2 When a circuit leased to a private user passes through a direct transit country, the Administration of this country will be remunerated by the Administrations of the terminal countries with a flat-rate price on the same basis as if the circuit were an ordinary public service circuit applying the rate in § 2.3.2.1.1.

2.3.2.2 *Remuneration of a country of destination*

To determine the flat-rate price for remuneration of the country of destination for the facilities made available by Administrations, the following standard rates are recommended:

[T4.301], p.

4) The rentals for telegraph channel transmission terminal equipment, per year, per terminal, determined in relation to costs are as follows:

- 216 SDR or 660 G. Fr. per 50-baud telegraph channel,
- 294 SDR or 900 G. Fr. per 100-baud telegraph channel,
- 441 SDR or 1350 G. Fr. per 200-baud telegraph channel,
- 719 SDR or 2200 G. Fr. per 300-baud telegraph channel.

The remuneration of the international exchange given in point 2) of § 2.3.2.2 takes into account an amount of 216 SDR or 660 G. Fr. relating to 50-baud terminal equipment.

2.3.3 All the amounts contained in § 2 above are reproduced in the three tables in Annexes A, B and C.

2.4 *Remuneration for facilities made available for the extension of intercontinental circuits*

In principle, the rates mentioned in § 2 above apply also to the remuneration of facilities made available for the extension of intercontinental cable or satellite circuits.

3 Determination of collection charges in telex relations between countries in Europe and the Mediterranean Basin

3.1 *General*

The establishment of the collection charge is a national matter. Whilst, in general, Administrations correlate collection charges and accounting rates, the two will not necessarily be the same for a number of reasons, for example:

- a) in most countries, collection charges and accounting rates will be expressed in different currencies;
- b) collection charges and accounting rates may be based on different traffic units;
- c) the value of national currencies may fluctuate in relation to the SDR or the gold franc;
- d) collection charges may be influenced by government fiscal policies;
- e) Administrations frequently establish common collection charges for geographical zones or groups of countries;
- f) **in many relations there will be different routes with different accounting rates to which a single collection charge will be applied.**

3.2 *Determination of collection charges*

3.2.1 The collection charge, in principle, should be the equivalent in national currency of the accounting rate. If, taking into account the factors in § 3.1 above, an Administration wishes to fix a collection charge at a higher or lower amount than the direct equivalent of the accounting rate, it may apply a multiplication factor K. This factor K should not be more than 1.8 when applied to the accounting rate in the relation concerned.

As a general principle, Administrations should make every effort to avoid too large a dissymmetry between the collection charges applicable in each direction of the same relation and should endeavour to agree upon application of the same factor K. Collection charges should be fixed at reasonable levels and the factor K = 1.8 is a maximum which should not be automatically applied. The factor K may be different for the different relations operated by an Administration.

Note — It is emphasized that the application of a factor K should not affect international accounting.

3.2.2 In considering the collection charges for a relation in which automatic and semi-automatic working both exist, each Administration should decide to fix its charges:

- either by establishing different charges for each method of operation; or
- by establishing a single collection charge weighted according to the volume of each type of traffic.

3.2.3 To recover the costs of operator assistance, Administrations may levy additional charges per call, the level of which is a national matter.

ANNEX A
(to Recommendation D.301 R)

Standard rates to be applied in Europe and the Mediterranean Basin
in determining accounting rate shares in the telex service
(traffic unit basis)

[T5.301], p.

[T6.301], p.

ANNEX B
(to Recommendation D.301 R)

Standard rates to be applied in Europe and the Mediterranean Basin

**in remuneration for transmission facilities
made available by Administrations in a direct transit country
(flat-rate price basis)**

Table [T7.301], p.

ANNEX C
(to Recommendation D.301 R)

Standard rates to be applied in Europe and the Mediterranean Basin

**in remuneration for facilities made available between
Administrations in a destination country**
(flat-rate price basis)

Table [T8.301], p.

ANNEX D
(to Recommendation D.301 R)

**Remuneration for the facilities used to set up
telegraph-type satellite circuits (Intelsat system)
via an earth station in Europe and the Mediterranean Basin**

D.1 *Flat rate charges for the provision of telegraph-type circuits set up via a foreign European earth station*

Preliminary note

The charges are the same, whether the telegraph-type circuit is used in an intra-European or an intercontinental relation.

When an Administration operates a direct satellite (VFT/TDM) telegraph-type circuit set up via a foreign European earth station, the following standard rates are recommended for the remuneration of the facilities provided by the country operating the earth station:

D.1.1 for the remuneration of the international circuit section between the border of the outgoing terminal country and the international exchange of the country operating the earth station, the rates set out in § 2.3.2.1.1 of the present Recommendation apply.

D.1.2 for the remuneration of the earth station and the national extension from the international exchange mentioned in § D.1.1, above, to that station:

Table 9 [T9.301], p.

D.1.3 for the remuneration of the space segment:

Table [T10.301], p.

Part of the circuits provided at the expense of the Administration operating the earth station.

The remuneration of the space segment for a full telegraph carrier circuit is normally payable directly to Intelsat;

D.1.4 for the remuneration of the two terminal equipments (components A) | interconnecting the land line extensions mentioned in §§ D.1.1 and D.1.2 above, the amounts set out in § 2.3.2.1.1, b) of the present Recommendation.

D.2 *Traffic unit price applicable in telex relations between countries of Europe and the Mediterranean Basin, for traffic routed via satellite links*

Preliminary note

The same standard rates are used to determine the accounting rate shares payable to terminal and transit (switched transit) countries.

D.2.1 *Routing via satellite links only*

When, in a given relation, all traffic is routed using international satellite links, the terrestrial distance between the respective terminal or transit exchanges is disregarded. In addition to the amounts quoted in § 2.3.1 of the present Recommendation, it is recommended that the following remuneration for the satellite link be applied in order to determine the terminal or transit shares relating to the use of that link:

These figures were calculated using 26 telex circuits per carrier circuit and 40 | 00 minutes per year.

— 0.012 SDR or 0.036 G. Fr.

D.2.2 *Routing via satellite and terrestrial links*

When, in a given relation, international traffic is routed via both satellite and terrestrial links, the additional remuneration is calculated by applying a weighting factor based on the number of circuits set up on each transmission medium to the transmission (*line part*) element.

Note — To take account of the relatively low utilization factor of certain earth stations, a correction factor may be applied to the standard rates given in the present Annex D by the Administrations owning the stations concerned.

The cost of international telecommunication circuits should be expressed in the form $A + B \times \frac{fH}{100}$. *A* represents all costs relating to terminal transmission equipment *for one end of the international circuit*; *B* represents the costs per 100 km (crowflight distance) of the circuit.

Blanc

**DETERMINATION OF THE ACCOUNTING RATE SHARES AND COLLECTION
CHARGES FOR THE INTERNATIONAL PUBLIC TELEGRAM SERVICE
|
APPLICABLE
TO TELEGRAMS EXCHANGED BETWEEN COUNTRIES IN EUROPE
AND THE MEDITERRANEAN BASIN**

Introduction

When, in full exercise of their sovereignty, the Administrations of the countries of Europe and the Mediterranean Basin negotiate among themselves agreements for determining the accounting rate shares and the collection charges to be applied to telegrams exchanged between them, it is recommended that they take into consideration:

— for the determination of accounting rate shares and accounting rates , the provisions of § 2 of this Recommendation;

— for fixing the collection charges , the provisions contained in § 3 of this Recommendation.

§ 4 of the Recommendation contains special provisions concerning charges and accounting for certain telegrams or special services.

In accordance with Article 30 of the *International Telecommunication Convention* | (Nairobi, 1982), the standard rates given in this Recommendation are expressed in the monetary unit of the International Monetary Fund (IMF), the Special Drawing Right (SDR), and in gold franc (G. Fr.).

1 Explanation of some of the terms used in this Recommendation

An explanation of some of the terms used in the Recommendation is given in Recommendation D.000.

2 Determination of accounting rate shares applicable to telegrams exchanged between countries in Europe and the Mediterranean Basin

Preliminary remarks

Through a cost study undertaken in 1982 relative to this Region, it was found that in the per word tariff system the cost price per word per terminal country is 0.363 SDR or 1.11 G. Fr. and that in the binary tariff system the cost price per terminal country is 4.90 SDR or 15 G. Fr. for the fixed charge of a telegram and 0.18 SDR or 0.55 G. Fr. for the charge per word.

Countries in the Mediterranean Basin are countries not belonging to Europe but bordering the Mediterranean Sea.

However, since such an increase of the accounting rates would necessarily lead to a rather sharp increase of the collection charges, Administrations have decided on an exceptional basis to recommend only a lower increase of the accounting rates at this time.

2.1 *Standard rates to be applied for international accounting*

The accounting rate shares may be determined either on the basis of a rate per word system or by applying a binary tariff system. The recommended standard rates for both systems are given below.

2.1.1 *Accounting rate shares determined by the per word tariff system*

2.1.1.1 *Terminal shares*

For ordinary private telegrams without any special service, the terminal share per word per terminal country is fixed at:

- 0.229 SDR or 0.70 G. Fr.

2.1.1.2 *Transit shares*

For ordinary private telegrams without any special service, the recommended transit share per word, per country, is:

- transit via a gentex transit centre: 0.004 SDR or 0.012 G. Fr.
- manual transit: 0.144 SDR or 0.44 G. Fr.
- transit via a telegram retransmission centre (automatic retransmission of messages)

These shares are not cumulative; they are based on an average length of 1000 km for the international transit circuits.

2.1.2 *Accounting-rate shares determined by the binary tariff system*

2.1.2.1 *General*

To take account of the fact that for every telegram there are two types of cost, viz:

- fixed costs for acceptance and delivery;
- variable costs depending on the length of the text for transmission and reception and for the use of the telegraph network.

Administrations providing this service indicate the shares they apply for the use of their telegram retransmission centre in the *Table of Rates for Telegrams* [1] published by the ITU.

It is pointed out that application of a binary tariff system should normally entail in the relation concerned, if necessary by bilateral arrangements:

- discontinuation of a minimum charge per telegram;
- discontinuation of letter telegrams and press telegrams;
- discontinuation of reduced charges for all telegrams except those concerning persons protected in time of war by the Geneva Conventions of 12 August 1949 (RCT).

The recommended standard rates for the binary tariff system are those given in §§ 2.1.2.2 and 2.1.2.3 below.

2.1.2.2 *Terminal shares*

The shares due to each terminal country for ordinary private telegrams without any special service:

- fixed rate per telegram: 3.10 SDR or 9.50 G. Fr.;
- rate per word: 0.114 SDR or 0.35 G. Fr.

These shares were established on the assumption of an average number of 27 words per telegram.

2.1.2.3 *Transit shares*

Transit shares are determined in accordance with the provisions of § 2.1.1.2 above.

2.2 *Special provisions concerning transit shares*

Transit facilities are made available to Administrations only on the basis of the flat-rate price procedure.

2.3 *Accounting rate*

Because transit shares for automatic transit are small and because most transit facilities made available among the Administrations of countries in Europe and the Mediterranean Basin are remunerated on a flat-rate basis, it is recommended that a single accounting rate fixed by adding together the shares of the two terminal countries should be applied to telegrams exchanged between those countries. The shares payable to the transit countries, if any, are deducted from the share of the country of origin.

3 Determination of collection charges applicable to telegrams exchanged between countries in Europe and the Mediterranean Basin

3.1 *General*

The establishment of the collection charge is a national matter. While, in general, Administrations correlate collection charges and accounting rates, the two will not necessarily be the same for a number of reasons, for example:

- a) in most countries, collection charges and accounting rates will be expressed in different currencies;
- b) the value of national currencies may fluctuate in relation to the SDR or the gold franc;
- c) the collection charges may be based on the per word tariff system and the accounting rate on the binary system or vice versa;
- d) collection charges may be influenced by government fiscal policies;
- e) Administrations may establish common collection charges for geographical zones or groups of countries.

3.2 *Determination of collection charges*

3.2.1 It is recommended that a single telegraph collection charge should be applied for telegrams exchanged among countries in Europe and the Mediterranean Basin. This single collection charge is the sum of the terminal shares of the two terminal countries fixed in accordance with the provisions of §§ 2.1.1.1 and 2.1.2.2 of this Recommendation. Administrations may fix a single charge per word (with or without a minimum charge) or apply a binary collection charge. If they choose the per word system they may nevertheless agree to use the binary system for the establishment of international accounts.

3.2.2 In principle, the collection charge should be the equivalent in national currency of the accounting rate. If, taking into account the factors in § 3.1 above, an Administration wishes to fix a collection charge at a higher or lower amount than the direct equivalent of the accounting rate, it may apply a multiplication factor K. The factor K may be different for the different relations operated by an Administration.

As a general principle, Administrations should make every effort to avoid too large a dissymmetry between the collection charges applicable in each direction of the same relation. Collection charges should be fixed at reasonable levels.

Note — It is emphasized that the application of a factor K should not affect international accounting.

4 Provisions common to accounting rates and collection charges applicable to telegrams exchanged between countries in Europe and the Mediterranean Basin

Having regard to the provisions of the *Telegraph Regulations* [2] and the CCITT Recommendations, the following rules shall be taken into consideration when fixing accounting rates and collection charges:

- a) for urgent telegrams, the charge is equal to twice the charge for an ordinary telegram for the same destination and by the same route;
- b) for telegrams concerning persons protected in time of war by the Geneva Conventions of 12 August 1949 (RCT), the total charge is reduced by 75%;
- c) when a charged service message includes an amount for a prepaid reply (RP), such amount is equivalent to the charge for an ordinary private seven-word telegram for the same destination and by the same route.

References

[1] *Table of Rates for Telegrams*, ITU, Geneva, 1985.

[2] *Final Acts of the World Administrative Telegraph and Telephone Conference — Telegraph Regulations, Telephone Regulations*, ITU, Geneva, 1973. (See also the Preliminary Note No. 3, page XIV.)

Recommendation D.303 |

DETERMINATION OF ACCOUNTING RATE SHARES AND COLLECTION CHARGES APPLICABLE BY COUNTRIES IN EUROPE AND THE MEDITERRANEAN BASIN TO THE OCCASIONAL PROVISION OF CIRCUITS FOR SOUND- AND TELEVISION-PROGRAMME TRANSMISSIONS

Introduction

When, in full exercise of their sovereignty, the Administrations of the countries of Europe and the Mediterranean Basin negotiate among themselves agreements for determining the accounting rate shares and when they fix the collection charges to be applied in their relations for the occasional provision of circuits for sound- and television-programme transmissions, it is recommended that they take into consideration:

- the charging principles specified in CCITT Recommendation D.180;
- for the determination of accounting rate shares, the provisions of § 1 of this Recommendation;
- for fixing the collection charges, the provisions contained in § 2 of this Recommendation.

In accordance with Article 30 of the *International Telecommunication Convention* (Nairobi, 1982), the standard rates given in this Recommendation are expressed in the monetary unit of the International Monetary Fund (IMF), the Special Drawing Right (SDR), and in gold francs (G. Fr.).

Countries in the Mediterranean Basin are countries not belonging to Europe but bordering the Mediterranean Sea.

An explanation of some of the terms used in this Recommendation is given in Recommendations D.180 and D.000.

1 Determination of accounting rate shares to be applied to the provision of circuits for sound- and television-programme transmissions between countries in Europe and the Mediterranean Basin

1.1 *General*

1.1.1 The accounting rate shares due to each terminal and transit country is derived from several elements, to which separate standard rates are applied, such as:

- the preparation and operation of circuits for sound- and television-programme transmissions;
- the terminal equipments in each terminal country, or the interconnection equipments in transit countries, the remuneration of which is a function of the duration;
- the *international line* part, which includes the various transmission systems used and for which the remuneration is a function of the distance and the duration;

1.1.2 In special cases where the *line* | (transmission) part of an international connection is:

- a tropospheric scatter link,
- a radio link, or
- a satellite link (see also § 4 of this Recommendation),

the provisions of this Recommendation with regard to the determination of an accounting rate share in relation to the length of the international circuit are not applicable and accounting rate shares should be agreed upon between the Administrations concerned.

1.2 *Calculation of distances (line part)*

1.2.1 *Circuits provided for sound-programme transmissions*

In determining the accounting rate share due to a country for the use of international circuits, the distance to be taken into consideration is:

in a terminal country

- the crowflight distance between the point at which the international circuit crosses the frontier and the international sound-programme centre (ISPC) ;

in a transit country

- the crowflight distance between the two frontier points at which the international circuit enters and leaves the country.

In addition, the special provisions in Recommendation D.300 R on the calculation of distances for telephone circuits are applicable. These provisions refer to special cases, to the possibility of weighting distances and to rounding off distances.

In some countries the distance is measured to the studio and not to the ISPC.

1.2.2 *Circuits provided for television-programme transmissions*

In determining the accounting rate share due to each terminal or transit country, the chargeable distance is based on the actual length of the international circuits rounded up to the nearest 10 km.

For a terminal country A and an adjacent country B, the distance is measured from the international television-programme centre (ITPC) in country A to the midpoint of the radio-relay link which connects the radio-relay stations in countries A and B.

For transit country B between two countries A and C, the actual length of the international circuit is measured from the midpoint of the radio-relay link which connects the radio-relay stations in countries A and B, to the midpoint of the radio-relay link which connects the radio-relay stations in countries B and C.

1.3 *Standard rates to be applied for international accounting*

For remuneration of Administrations for the facilities made available, the traffic unit price procedure is applied. However, when sound-programme circuits pass through a direct transit country, remuneration of the transit country shall normally be based on the flat-rate price procedure.

In some countries the distance is measured to the studio and not to the ITPC.

1.3.1 *Circuits provided for sound-programme transmissions*

To determine the accounting rate shares due to each country, the following standard rates are recommended:

Table [T1.303], p.

Table [T2.303], p.

Table [T3.303], p.

Table [T4.303], p.

Table [T5.303], p.

When the telephone circuit is used as a sound-programme (narrow-band) circuit, this fixed surcharge is levied in addition to the fixed rate mentioned in point 1) above.

6) *Any special expenses per provision of the circuit for setting up and clearing down temporary national extensions*

These expenses are calculated on the basis of the national rules in force in each country.

All the values given in § 1.3.1 above also appear in the table in Annex A.

Examples of calculation of the rates for the provision of circuits for sound-programme transmissions are given in Annex B.

Note 1 — The minimum chargeable duration for the provision of circuits for sound-programme transmissions is three minutes.

Note 2 — When a narrow-band (telephone-type) circuit is provided with a 4-wire terminal and is used for any purpose, the fixed surcharge per provision of the circuit given in 5) above is 19.60 SDR or 60 G. Fr.

Note 3 — The use of a sound-programme circuit established on a sub-carrier of a channel used for television transmission is charged as for a 10 kHz or 15 kHz sound programme circuit.

Note 4 — When a *sound-in-sync* (SIS) facility is used, no additional amount is added to the accounting rates. Any remuneration for extra expenses incurred by an Administration is a national matter between that Administration and its broadcasting organization.

1.3.2 *Circuits provided for television-programme transmissions*

To determine the accounting rate shares due to each country, the following standard rates are recommended:

Table [T6.303], p.

All the values given in § 1.3.2 above also appear in the table in Annex A.

Examples of the calculation of the rates for the provision of circuits for television-programme transmissions are given in Annex B.

Note 1 — The minimum chargeable duration for the provision of circuits for television-programme transmissions is three minutes.

Note 2 — When an Administration provides a transcoder (e.g. PAL to SECAM or vice versa) or a standards converter (e.g. 625 lines PAL to 525 lines NTSC), it may apply an extra charge per minute. Application of this extra charge is left to the discretion of each Administration owning a transcoder or converter.

Note 3 — When a television-programme circuit is used with a *sound-in-sync* (SIS) facility, the conditions of § 1.3.1, Note 4 above apply.

Note 4 — When a television-programme circuit is used and line 16/329 is also used for data transmission associated directly with the programme transmission supervision, remote control and monitoring, no extra charge will be applied.

1.3.3 *Cancellation fee*

For the cancellations and alterations of bookings provided for in §§ 4.3 and 4.4 of Recommendation D.180, application of the following fees is recommended:

a) Half the fixed rate for preparation and operation of the circuits mentioned in 1) of § 1.3.1 and 1) of § 1.3.2 respectively, if the cancellation or alteration of the order is made less than 24 hours, but more than 2 hours before

the time scheduled for the beginning of the provision of circuits;

b) The entire fixed rate for preparation and operation of the circuits mentioned in 1) of § 1.3.1 and 1) of § 1.3.2 respectively, if the cancellation or alteration of the order is made 2 hours or less before the time scheduled for the beginning of the provision of circuits.

2 Determination of collection charges for the provision of circuits for sound- and television-programme transmissions between countries in Europe and the Mediterranean Basin

2.1 General

The establishment of the collection charge is a national matter. While, in general, Administrations correlate collection charges and accounting rates, the two will not necessarily be the same for a number of reasons, for example:

- a) in most countries collection charges and accounting rates will be expressed in different currencies;
- b) the value of national currencies may fluctuate in relation to the SDR or the gold franc;
- c) collection charges may be influenced by government fiscal policies;
- d) Administrations frequently establish common collection charges for geographical zones or groups of countries.

2.2 Determination of collection charges

In principle, the collection charge should be the equivalent in national currency of the accounting rate. If, taking into account the factors in § 2.1 above, an Administration wishes to fix a collection charge at a higher or lower amount than the direct equivalent of the accounting rate, it may apply a multiplication factor K. The factor K may be different for the different relations operated by an Administration.

As a general principle, Administrations should make every effort to avoid too large a dissymmetry between the collection charges applicable in each direction of the same relation. Collection charges should be fixed at reasonable levels.

Note — It is emphasized that the application of a factor K should not affect international accounting.

3 Determination of accounting rate shares to be applied to the provision of circuits for intercontinental sound- and television-programme transmissions to or from the countries of Europe and the Mediterranean Basin

3.1 The rates for the provision of circuits for intercontinental sound- and television-programme transmissions to or from countries in Europe and the Mediterranean Basin, except for the provision of narrow-band circuits, are normally obtained by adding together the rates for the intercontinental and European sections. The rates for each section are calculated in accordance with the tariff rules in force in each of the systems concerned.

3.2 The provision of narrow-band circuits for intercontinental sound-programme transmissions is subject to the same charging rules as for the provision of such circuits for European continental transmissions, namely application of:

- a) the fixed rate for preparation and operation,
- b) the fixed surcharge for making available a narrow-band circuit,
- c) the ordinary telephone rate,

- d) if applicable, the cancellation fee mentioned in § 1.3.3 above.

4 Special provisions determining charges for television transmissions by satellite

In addition to the provisions contained in § 5.2 of Recommendation D.180, the points mentioned below should be taken into account by Administrations when calculating their charges:

The cost study undertaken by the TEUREM Group in the study period 1981-1984 for the provision of terrestrial services within the Region and in the study period 1985-1988 for the provision of earth station facilities for occasional television services via satellite showed that the costs were higher than the charges generally applied.

It was recognized that the increase in charges which would be required to bring provision of the service up to an economic level would be substantial. Nevertheless, in the actual circumstances, it is not recommended to increase these rates.

For the service via satellite, the study showed that the cost per minute for earth station facilities was of the order of 30 SDR or 91 G. Fr. compared with average charges per minute of between 33-42 SDR or 102-128 G. Fr. (based on tariffs of 526/19.60 SDR or 1900/60 G. Fr. and 751/26 SDR or 2300/80 G. Fr. and for an average duration of 31 minutes). However, the latter charges include the space segment and terrestrial circuit from the earth station to the ITPC and ISPC (gateway) as well as the earth station. In 1986, space segment charges were \$ 8 per minute (approximately 6.75 SDR or 20.5 G. Fr.) and the charge for the terrestrial circuit based on an average distance of 400 km would be 24 SDR or 73.6 G. Fr. at 1985-recommended levels.

For multiple destination services, the charge per receiving country for the down-link part of the international satellite television circuit should be the same as for a single destination service.

For cancellations, it is recommended that charges levied by Administrations should also take into account any space segment charges which may be levied and any other relevant conditions which may apply.

If any additional sound-programme circuits are provided, these should be charged on the same basis as a separate circuit for an intercontinental sound-programme transmission.

On the basis of 1 SDR = 1.20\$.

ANNEX A
(to Recommendation D.303 R)

**Standard rates to be applied in Europe and the Mediterranean Basin
for the occasional provision of circuits for sound- and
television-programme transmissions**

Table [T7.303], p.

ANNEX B
(to Recommendation D.303 R)

**Examples of the calculation of rates for the provision of
circuits for occasional sound- and television-programme transmissions**

B.1 *Circuits provided for sound-programme transmissions*

Example 1 — Provision of sound-programme circuits: 20 minutes

Figure 47770, p.

Table [T8.303], p.

Example 2 — Provision of sound-programme circuits: 20 minutes

Figure 47780, p.

Table [T9.303], p.

Example 3 — Provision of a narrow-band (direct route) circuit for an intercontinental sound-programme transmission: 20 minutes

Figure 28481, p.

Table [T10.303], p.

Example 4 — Provision of narrow-band circuits (with interconnection in Europe) for an intercontinental sound-programme transmission: 20 minutes

Figure 28480, p.

Tableau [T11.303], p.

B.2 *Circuits provided for television-programme transmissions*

Example 1 — Provision of television-programme circuits: 30 minutes

Figure 47790, p.

Tableau [T12.303], p.

Example 2 — Provision of television-programme circuits: 50 minutes

Figure 47800, p.

Tableau [T13.303], p.

Recommendation D.305 R

**REMUNERATION FOR FACILITIES USED
FOR THE SWITCHED-TRANSIT HANDLING OF INTERCONTINENTAL
TELEPHONE TRAFFIC IN A COUNTRY IN EUROPE**

OR THE MEDITERRANEAN BASIN

(Malaga-Torremolinos, 1984)

The CCITT,

considering

(a) the widespread development of automatic transit facilities in telephone relations between the countries in Europe and the Mediterranean Basin and non-European countries, and also the necessity of applying in their regard the accounting principles laid down in Recommendation D.150;

(b) the utility and necessity of determining accounting rates and conditions ensuring the equitable remuneration of Administrations for the transit facilities made available, while also allowing for the reasonable remuneration of the terminal countries,

recommends

that the provisions set out below be considered for application to the intercontinental telephone relations involving transit with manual or automatic switching in Europe:

1 The remuneration of transit countries is made up of the following components:

1.1 the remuneration relating to the half of one (or two) intercontinental circuit(s) on the European side (including the earth station and the extension circuit as far as the international exchange);

1.2 in relations handled via an *automatic* transit exchange, the remuneration relating to this exchange, calculated in accordance with the standard rates applicable to the automatic service as established by Recommendation D.300 R;

1.3 in relations handled via a *manual* | transit exchange, the remuneration relating to this exchange, calculated in accordance with the standard rates applicable to the manual service, as established by the provisions of Recommendation D.300 R;

1.4 in relations between a European terminal country and a non-European country, the remuneration of the extension land circuit between the international transit exchange and the European terminal country, made available at its own expense by the Administration of the transit country; this remuneration is calculated in accordance with the standard rates applicable to the automatic service as established by Recommendation D.300 R on the basis of a standard average distance of 500 km;

2 The total remuneration in SDR or gold francs of the European transit country, as established in § 1 above, is given in Table 1/D.305 R.

Table [T1.305], p.

The above figures are reference values and may be adjusted, particularly to take into account higher costs for providing this service.

Recommendation D.306 R

**REMUNERATION OF PUBLIC
PACKET-SWITCHED DATA TRANSMISSION NETWORKS
BETWEEN THE COUNTRIES OF EUROPE AND THE MEDITERRANEAN BASIN**

(Melbourne, 1988)

The CCITT,

considering

(a) the introduction in many countries of Europe and the Mediterranean Basin of packet-switched data transmission networks, and the systematic establishment of links between them and of links connecting them to networks on other continents;

(b) that these networks are not only used for the transfer of computer data, but also as bearer networks for the provision of Telematic services;

(c) that basic financial data on the transmission, switching operational and maintenance facilities involved are needed in order to determine the accounting rate to be applied to the data transmission service, which may also serve as a component of the accounting rate for a Telematic service provided over these networks;

recommends

that the accounting rate shares to be applied on public packet-switched data transmission networks to remunerate the international centre, international transmission and national extension should be as follows:

1 Terminal traffic

Terminal share per kilosegment 1.30 SDR or 3.98 G. Fr.

In normal cases there will be no accounting for the duration component.

By special bilateral agreement, Administrations may account for the volume and duration components, applying the following terminal shares:

— per kilosegment 0.90 SDR or 2.75 G. Fr.

— per hours 0.63 SDR or 1.94 G. Fr.

2 Transit traffic

The amount of 1.30 SDR is composed of the following elements:

— international transmission	0.05 SDR	— international exchange	0.50 SDR
		— national extension	0.75 SDR.

The figures were calculated using 0.633 remunerated hours per remunerated kilosegment.

Transit share per kilosegment 0.60 SDR or 1.84 G. Fr.

In normal cases there will be no accounting for the duration component.

3 Total accounting rate

The total accounting rate is established by adding the terminal shares and the transit share(s).

4 Collection charge

The establishment of the collection charge is a national matter. It is however recognized that in the public packet-switched service the structure of the collection charge and of the accounting rate may differ. Cost elements not relevant for international accounting would be one of the reasons why a collection charge composed of volume and duration charges, independently of the structure of the accounting rate, might be required.

**REMUNERATION OF DIGITAL SYSTEMS AND CHANNELS USED IN
TELECOMMUNICATION RELATIONS BETWEEN THE COUNTRIES**

OF EUROPE AND THE MEDITERRANEAN BASIN

(Melbourne, 1988)

The CCITT,

considering

(a) that increasing use is being made of digital systems and channels in land and submarine transmission media, either to make international private telecommunication circuits available to clients, or to extend established digital systems by transoceanic fibre-optic cables or by satellite;

(b) that basic financial data relating to digital transmission and switching media are needed in order to solve the tariff problems of digital telecommunication services and particularly those of the integrated services digital network (ISDN);

(c) the result of the cost study carried out by the TEUREM Group on international digital systems and channels used in telecommunication relations between countries in Europe and the Mediterranean Basin (see Annex A);

recommends

— that, in order to promote digital telecommunication services, Administrations should consider the flat-rate remunerations quoted in Annex A as maximum reference values;

— that, under the above circumstances, in the absence of special agreements between Administrations, the following flat-rate remuneration should be applied:

The Administrations of the Netherlands and the United Kingdom express their reservation with regard to this Recommendation. Both Administrations oppose higher accounting rates for digital transmission facilities as compared to equivalent analogue facilities as such a practice conflicts with the principle that accounting rates for equivalent facilities are not related to the transmission medium used. In their view, higher accounting rates for digital transmission facilities could have an adverse impact on the development of a full international digital telecommunication network which would be to the detriment of users and Administrations.

Transmission facilities (“line” part)

Table 1/D.307R gives the remuneration per year and per 100 km crowflight distance for the component B (see Annex A).

H.T. [T1.307]
TABLE 1/D.307 R

System	{	
	SDR	G. Fr.
{ <i>As from 1 January 1989</i> }		
565 Mbit/s systems	1 90 20	3 39 06
140 Mbit/s systems	36 67	1 29 20
34 Mbit/s systems	09 92	33 31
8 Mbit/s systems	36 64	11 10
2 Mbit/s systems	12 00	36 32
64 kbit/s channels	00	1 37
{ <i>As from 1 January 1990</i> }		
565 Mbit/s systems	1 00 80	3 61 45
140 Mbit/s systems	08 58	43 84
34 Mbit/s systems	00 08	06 24
8 Mbit/s systems	33 36	02 41
2 Mbit/s systems	11 00	33 71
64 kbit/s channels	50	1 84
{ <i>As from 1 January 1991</i> }		
565 Mbit/s systems	09 20	2 82 16
140 Mbit/s systems	80 12	58 35
34 Mbit/s systems	90 12	78 82
8 Mbit/s systems	30 04	92 61
2 Mbit/s systems	10 00	30 10
64 kbit/s channels	00	1 31

Table 1/D.307 R [T1.307], p.

ANNEX A
(to Recommendation D.307 R)

**Results of the cost study on international
digital systems and channels**

A.1 *Transmission facilities ('line' part)* | (see Table A-1/D.307 |)

Table [T2.307], p.

A.2 *Switching* | (see Table A-2/D.307 R)

Table [T3.307] p.

**DETERMINATION OF RENTALS FOR THE LEASE OF INTERNATIONAL
PROGRAMME (SOUND- AND TELEVISION-) CIRCUITS AND ASSOCIATED
CONTROL CIRCUITS FOR PRIVATE SERVICE IN RELATIONS BETWEEN
COUNTRIES IN EUROPE AND THE MEDITERRANEAN BASIN**

Preamble

This Recommendation, which should be applied in conjunction with the provisions of Recommendations D.1, D.2 and D.4, fixes the rentals for the lease of international sound- and television-programme circuits and associated control circuits for private service in relations between countries in Europe and the Mediterranean Basin.

In accordance with Article 30 of the *International Telecommunication Convention* (Nairobi, 1982), the standard rates given in this Recommendation are expressed in the monetary unit of the International Monetary Fund (IMF), the Special Drawing Right (SDR), and in gold francs (G. Fr.).

1 Rentals for the lease of sound-programme circuits and associated control circuits

1.1 The lease of a sound-programme circuit shall, in principle, last for a minimum of one month.

Nevertheless, sound-programme circuits may be leased for periods of less than one month, by agreement between the Administrations concerned.

1.2 For calculating the duration of the lease the provisions of §§ 2.4, 2.5 and 2.6 of Recommendation D.1 should apply.

1.3 The monthly rental for the lease of a telephone-type circuit for *all uses*, as provided in Recommendation D.2, with a multiplication coefficient of 1.00, is taken as reference for the determination of the rental for the lease of sound-programme circuits and associated control circuits.

1.4 The following monthly rentals are recommended for the lease of the different types of sound-programme circuit:

- a) narrow-band circuit (telephone-type circuit at approximately 3 kHz) with a 2-wire termination at the user's end:
 - 0.75 times the amount of the monthly rental for the lease of a telephone-type circuit for *all uses* ;
- b) narrow-band circuit (telephone-type circuit at approximately 3 kHz) with a 4-wire termination at the user's end, whatever use is made of the circuit.
 - 1.00 times the amount of the monthly rental for the lease of a telephone-type circuit for *all uses* ;
- c) sound-programme circuit at approximately 10 kHz :
 - 1.3 times the amount of the monthly rental for the lease of a telephone-type circuit for *all uses* ;
- d) sound-programme circuit at approximately 15 kHz :
 - 1.6 times the amount of the monthly rental for the lease of a telephone-type circuit for *all uses* ;
- e) stereophonic pair :

Countries in the Mediterranean Basin are countries not belonging to Europe but bordering the Mediterranean Sea.
A definition of a telephone-type circuit for *all uses* is given in Recommendation D.2.

— 3.2 times the amount of the monthly rental for the lease of a telephone-type circuit for *all uses* .

2 Rentals for the lease of television-programme circuits

2.1 *Lease on an annual basis*

2.1.1 The lease of television-programme circuits shall in principle last for a minimum of one year.

2.1.2 The following annual rentals are recommended for the lease of television-programme circuits:

- 40 | 36 SDR or 125 | 00 G. Fr. per terminal equipment at each end;
- 65 | 38 SDR or 200 | 00 G. Fr. per 100 kilometres of line.

2.2 *Lease on a monthly basis*

2.2.1 By agreement between the Administrations concerned, television circuits may be leased on a monthly basis.

2.2.2 In calculating the duration of the lease, one month shall mean one calendar month. Moreover, the day on which the circuit is made available ready for service to the customer, shall not be reckoned. The day on which the circuit is withdrawn shall be reckoned as a full day. Thus, a period of lease covering one month or more is calculated as follows:

- a) count the number of days beginning on the day following the day on which the circuit was made available until the end of the month;
- b) thereafter count the number of full calendar months, if any; and
- c) count the number of service days in the last month, including the day on which the circuit was withdrawn.

2.2.3 The monthly rental shall be equal to 1/10 of the annual rental, but the full amount paid by a customer for any one year may not exceed that of the annual rental.

2.2.4 As regards charging:

- full calendar months are subject to the monthly rental,
- fractions of a month shall be subject, for each day of lease, to a daily charge equal to 1/30 of the monthly rental (to determine the chargeable time, see the examples given in § 2.4.2 of Recommendation D.1).

2.3 *Short-term lease*

2.3.1 By agreement between the Administrations concerned, television circuits may be leased for periods of less than one month.

2.3.2 In calculating the life of a temporary lease, one day shall mean a period of 24 consecutive hours.

The life of a lease should be calculated in multiples of 24 hours, the period starting from the hour at which the circuit is made available until the time at which it is withdrawn. If the number of days thus obtained contains a fraction of 24 hours, it should be rounded up to the next whole number (to determine the chargeable time, see the examples given in § 2.5.1 of Recommendation D.1).

2.3.3 In this case (temporary lease), the rentals are calculated according to the provisions of § 2.5.2 of Recommendation D.1.

3 **General leasing conditions**

3.1 The leases referred to above shall generally be based on the uninterrupted provision of the leased circuit for 24 hours per day (subject to the provisions of §§ 1.4 and 1.6 of Recommendation D.1).

In a transit country where two circuits are interconnected, the rental for two terminal equipments (i.e. 81 | 72 SDR or 250 | 00 G. Fr.) should be applied.

3.2 The lease shall be continued thereafter by tacit agreement until cancelled by either party. Notice of cancellation must normally be given seven days in advance of the effective date of cancellation. However, an Administration may require a different period of notice.

ACCOUNTING SYSTEM IN THE INTERNATIONAL AUTOMATIC TELEPHONE SERVICE

In the international automatic service in Europe, the charge will, in general, be automatically registered on subscribers' meters and Administrations will no longer have tickets available for working out the distribution of charges on the basis of the chargeable duration of calls.

Although technically possible, the recording, for international accounts, of the chargeable duration of each effective call would require the installation of new equipment which does not seem justified with the sole object of establishing international accounts. The various systems used for charging subscribers would also result in different chargeable durations for the same traffic.

In these circumstances, after the question had been studied in the period 1957-1960, the IInd Plenary Assembly of the CCITT (New Delhi, 1960) recommended the application of certain provisions concerning continental telephone accounts. These provisions, applying only to Europe, were embodied in a Recommendation last published in the *White Book* (Mar del Plata, 1968) as number E.280 [1]. In view of the new international accounting system described in Recommendation D.150, former Recommendation E.280 was revised when Volume II-2 of the *Green Book* (Geneva, 1973) was prepared.

The new provisions, revised in the light of Recommendation D.150, read as follows:

1 International accounts for traffic in automatic service should be drawn up on the basis of the total of all call durations measured in the international exchanges of the country of origin on the appropriate meters or equivalent devices. A charge in gold francs per minute of call duration, valid in both directions of the relation, will be fixed by agreement between Administrations on the basis of the international standard tariffs in Recommendation D.300 R.

Exceptions to this general rule may occur in the following cases:

- a) When the Administrations concerned agree to dispense with accounts or to adopt lump-sum settlement.
- b) When one or both of the Administrations concerned already possess equipment capable of showing the chargeable durations incurred by the subscribers. The accounts prepared on these bases must give the same result as if the call durations had been measured, by applying if necessary the appropriate correction factors.
- c) When in automatic international service either or both of the Administrations concerned use a national type of simplified code-signalling system which makes it impossible to assess the call durations without excessive complications, the Administrations shall measure the total holding time of the outgoing international circuits. In that case, a correction factor shall be applied to the measured holding time values in order to obtain the real call duration which should have been measured as a total on the outgoing international circuits. The correction factors to be applied must be determined by agreement between the Administrations concerned.

2 International accounts for semiautomatic traffic shall be established on the same basis as those for automatic traffic (see Recommendation D.150, § 1.2.2).

3 To take account of the special system of charging for frontier relations (reduced charges between neighbouring frontier zones), special steps will have to be taken to discriminate between automatic calls in frontier relations and other automatic calls. This discrimination will be made every time that frontier traffic is routed wholly or partly (overflow) by international circuits having devices for measuring call duration.

This discrimination will, in general, necessitate:

- a) a more complete analysis of the national (significant) number of the called subscriber than the one which is quoted in Recommendation E.163 [2], and
- b) the determination of the origin of the calls, since frontier charges depend on the distance between the outgoing and the incoming frontier zones

4 Measurement of the call duration on meters shall be made according to country of destination. When the country of destination comprises several charging zones, these measurements will ordinarily be made according to the charging zone.

5 The measurement of call durations made by the international exchange in the country of origin to a given country of destination shall not distinguish between the routes involving different transit countries, provided that the traffic is transmitted over direct circuits which constitute the normal route. For accounting purposes, the total volume of traffic sent by each route is assumed to be proportional to the number of circuits in service on the 15th of each month on each route.

6 The provisions of Recommendation D.150 shall be applied whenever the traffic is routed via a transit exchange in another country.

It is to be noted that when Recommendation E.280 [1] was prepared in 1960 the following rule was permitted to simplify matters and to avoid the need for an analysis of routes actually taken by a call beyond a transit exchange when several routes passing through different countries to the destination in question are possible from the transit exchange:

“The distribution of transit traffic over these different routes shall be taken to be the same as the distribution of traffic originating at the transit exchange for the destination concerned.”

7 In international accounts the traffic expressed in minutes relating to test calls, service calls and calls terminating at wrong numbers should not be deducted, since the overall duration of these various types of call is very small in relation to the total traffic.

Nevertheless, when the percentage of wrong numbers due to faults in the equipment in the country of destination is greatly in excess of what is regarded as a reasonable percentage in a service of good quality, the Administration in the country of origin will be entitled to make certain deductions, in agreement with the Administration of the country of destination.

When free calls are allowed, for example during international telecommunication conferences, deductions may be made in the international accounts by the Administrations of the country on whose territory the conferences are held.

8 The arrangements concerning the acceptance of international accounts as defined in [3] are applicable to automatic traffic.

Accounts shall be drawn up monthly but, to avoid errors which might be serious in the event of the meters being faulty, the call duration meters shall be read every day.

9 It is not essential that call duration meters be read at midnight on the last day of the month: it will suffice if they are read on the last day of the month at the most convenient time. Should the last day of the month not be a working day, these meters can be read the day before or the day after.

The monthly account forwarded to the other Administrations shall show the day on which meters were read. It ought to be possible to arrange for all meters in an exchange to be read on the same day, since there are relatively few circuits on which call duration meters have to be read.

10 The degree of accuracy of the call duration measurement equipment shall be $\pm 1\%$ with a confidence limit of 95%, on the understanding that the result is obtained for a set of measurements covering an adequate number of calls, which, in light traffic relations, may lead to acceptance of the fact that $\pm 1\%$ accuracy should be obtained on the overall measurements for the year, but not for each of the partial measurements made during that year (monthly measurements, for example, if the monthly interval is retained for the establishment of international accounts).

References

[1] CCITT Recommendation *Accounting system in the automatic telephone service*, White Book, Vol. II-A, Rec. E.280, ITU, Geneva, 1969.

[2] CCITT Recommendation *Numbering plan for the international telephone service*, Rec. E.163.

[3] *Final Acts of the World Administrative Telegraph and Telephone Conference — Telegraph Regulations, Telephone Regulations*, Article 8, Accounting, of the Telephone Regulations, ITU, Geneva, 1973. (See also the Preliminary Note No. 3, page XIV.)

PAGE PAIRE = BLANCHE

