Recommendation B.13[1)]

TERMS AND DEFINITIONS

The CCITT,

considering

(a) that it is desirable to have, in addition to specific terminology texts produced by Study Groups, definitions of the general technical terms used in CCI texts;

(b) that the CCIs are cooperating with the International Electrotechnical Commission (IEC) in the production of the International Electrotechnical Vocabulary (IEV) (see CCIR Resolution 66 and CCITT Recommendation A.12),

recommends

(1) that Administrations and recognized private operating agencies of the CCIs, as well as CCI Secretariats, should use as far as possible, technical terms in the field of telecommunications with the meaning given in the IEV, the plan of which is given in Appendix I to this Recommendation;

(2) that general terms common to several Study Groups should be used with the meaning given in Appendix II to this Recommendation, generally close to the meaning given in the IEV but adapted for CCI needs.

Note — The definitions given in the IEV Chapters, like those included in Appendix II, are of a general nature; their purpose is that all Study Groups should use general terms with the same meaning. In certain cases they may be slightly different from more complete definitions prepared, or being prepared, by some Study Groups for their specific needs, but they are not in contradiction with the latter.

These definitions do not replace definitions contained in CCIR or CCITT Recommendations (or in the Radio Regulations, the Telegraph and Telephone Regulations or the ITU Convention) which are to be used in their respective fields of application.

APPENDIX I

(to Recommendation B.13)

"Telecommunications" chapters of the International Electrotechnical Vocabulary (IEV)

The IEV is IEC Publication No. 50; it comprises a great number of chapters, published in separate fascicles. Chapters of the 700 series deal with telecommunications and are prepared by Joint Working Groups in which CCI experts take part, coordinated by the JCG (Joint Coordinating Group).

Series 700 Chapters which are dealt with by Joint Working Groups are the following:

***Note*: Two and a half pages of a table to Appendix I to Recommendation B.13 are missing.**

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1) A similar text will be transmitted to the CCIR as a revision of Recommendation 662.

APPENDIX II

(to Recommendation B.13)

General terminology of telecommunications

(Terms common to CCIR and CCITT)

In order to ensure that telecommunication terms employed by the CCIs have the same meaning, CMV has collected general terms used in the texts of different Study Groups together with their definitions.

Note — These terms and definitions in this Appendix have been arranged according to subject as follows:

1) Forms of telecommunications.

2) Channels, circuits and networks.

3) Use and operation of circuits and networks.

4) Frequencies and bandwidths.

Administrations and Study Groups are invited to comment on these terms and definitions, and particularly, to forward to CMV their proposals for revision or for alternative applications, accompanied by appropriate justifications.

When examining these definitions, it should be borne in mind that Recommendation 573 on radiocommunication vocabulary contains terms relating more specifically to the CCIR.

The following Notes should also be taken into account:

Note 1 — Definitions of "forms of telecommunication" have been produced by the CMV in cooperation with the CCI—IEC Joint Coordination Group on Vocabulary (JCG), to be used by CCIR and CCITT Study Groups.

These definitions of "forms of telecommunication" are of a general nature and are not in contradiction with definitions of services presently specified by CCITT and CCIR. Definitions of services are produced by the Study Groups responsible for these services (mainly CCITT Study Groups I and II for telecommunication services, CCIR Study Groups 10 and 11 for broadcasting services).

Note 2 — A number of terms in this Recommendation appear also in Article 1 of the Radio Regulations with a different definition. These terms are identified by (RR . . ., MOD). Modifications are proposed for two reasons:

a) some Radio Regulations definitions only take into account regulatory aspects, while the CMV proposes definitions of a technical nature;

b) some Radio Regulations definitions give rise to difficulties of interpretation, in these cases, modifications or additions proposed by the CMV may be useful later for draft revisions of the Radio Regulations definitions in accordance with Recommendation No. 72 of WARC—79 and Study Programme 1A/CMV.

For regulatory applications, only the terms and definitions in the Radio Regulations may be used.

Note 3 — Terms and definitions relating to reliability have not been included in this appendix because they usually have rather specific applications. However, some terms (such as availability, reliability, maintainability) are currently used by a number of Study Groups. Many terms will be found in Recommendation G.106 "Concepts, terms and definitions related to quality of service, availability and reliability".

II.1 *Forms of telecommunications*

II.1.1 **Information,** *Information, Información*

Intelligence or knowledge capable of being represented in forms suitable for communication, storage or processing.

Note — Information may be represented for example by signs, symbols, pictures or sounds.

II.1.2 **Signal,** *Signal, Señal*

A physical phenomenon one or more of whose characteristics may vary to represent information.

Note — The physical phenomenon may be for instance an electromagnetic wave or acoustic wave and the characteristic may be an electric field, a voltage or a sound pressure.

II.1.3 **Transmission,** *Transmission, Transmisión*

The transfer of information from one point to one or more other points by means of signals.

Note 1 — Transmission can be effected directly, or indirectly, with or without intermediate storage.

Note 2 — The use of the English word "transmission" in the sense of "emission" in radiocommunication is deprecated.

II.1.4 **Sending,** (in telecommunication), **Transmission** (deprecated in this sense); *Emission* (en télécommunication); *Emisión* (en telecomunicación

The production of a signal at an input port of a transmission line or into a transmission medium.

Note — In French the term "émission" has other meaning in radiocommunications, as given in CCIR Recommendation 573.

II.1.5 **Communication,** *Communication, Comunicación*

Information transfer according to agreed conventions.

Note — In French and Spanish the corresponding terms "communication" and "comunicación" have additional specific meanings in telecommunications (see §§ II.3.5 and II.3.2).

II.1.6 **Telecommunication,** *Télécommunication, Telecomunicación*

Communication by wire, radio, optical or other electromagnetic systems.

Note — The following definition is given in the International Telecommunication Convention (Nairobi, 1982) (and RR 4):

Any transmission, emission or reception of signs, signals, writing, images and sounds or intelligence of any nature by wire, radio, optical or other electromagnetic systems.

II.1.7 **Telephony,** *Téléphonie, Telefonía*

A form of telecommunication primarily intended for the exchange of information in the form of speech.

Note — This is the definition given in the International Telecommunication Convention (Nairobi, 1982) (RR 117, MOD).

II.1.8 **Telegraphy,** *Télégraphie, Telegrafía*

A form of telecommunication in which the transmitted information is intended to be recorded on arrival as a graphic document; the transmitted information may sometimes be presented in an alternative form or may be stored for subsequent use.

Note 1 — A graphic document records information in a permanent form and is capable of being filed and consulted; for example, it may take the form of written or printed matter or a fixed image.

Note 2 — This is the definition given in the International Telecommunication Convention (Nairobi, 1982) (RR 111, MOD).

Note 3 — Telegraph does not include television or videography.

Note 4 — Moreover, in the Convention and in the RR, the following restriction is given:

"For the purpose of the Radio Regulations, unless otherwise specified therein, telegraphy shall mean a form of telecommunication for the transmission of written matter by the use of a signal code" (RR 111, extract).

II.1.9 **Telex** (service)**,** (service) *Télex*, (servicio) *Télex*

A telegraph service enabling subscribers to communicate directly and temporarily with each other by means of start—stop apparatus and telecommunication circuits of the public telecommunication network.

II.1.10 **Facsimile,** *Télécopie, Facsímil*

A form of telecommunication for the reproduction at a distance of graphic documents in the form of other graphic documents geometrically similar to the original.

II.1.11 **Telewriting,** *Téléécriture, Teleescritura*

A form of telecommunication for the purpose of transmitting graphical information as it is being manually written or drawn and for simultaneously generating a reproduction at the distant terminal either on a screen or in some other form.

Note — In cases where the reproduction at the receiving end is in the form of a graphic document, the term "téléautographie" can be employed in French.

II.1.12 **Data,** *Données, Datos*

Information represented in a manner suitable for automatic processing.

II.1.13 **Data communication, Data transmission** (deprecated in this sense); *Communication de données; Transmission de données (deprecated in this sense); comunicación de datos, Transmisión de datos (deprecated in this sense)*

A form of telecommunication intended for the transfer of information between data processing equipments.

II.1.14 **Data transmission,** *Transmission de données, Transmisión de datos*

The conveying of data from one place to another by telecommunication.

Note — The term "data transmission" is deprecated in the sense of "data communication".

II.1.15 **Teleprocessing, teleinformatics;** *Téléinformatique, Télétraitement; Teleinformática, Teleproceso*

The association of telecommunication and data processing techniques to process information at a distance.

II.1.16 **Television,** *Télévision, Televisión*

A form of telecommunication for the transmision of signals representing scenes; images of the scenes being reproduced on a screen as they are received.

Note 1 — The received signals may be stored for subsequent display of the images on a screen.

Note 2 — This form of telecommunication finds major application in television broadcasting and the word "television" is often used without qualification to describe this application. The same technique is also used for industrial, scientific, medical and other applications; such applications are often referred to as "closed—circuit television".

II.1.17 **Still—picture television (SPTV),** *Télévision à images fixes, Televisión de imágenes fijas*

Television in which the time interval between a displayed picture and the display of either an updated version of the same picture, or a new picture forming part of a sequence, exceeds (generally by an appreciable factor) the usual time interval between pictures.

Note — The question as to whether still—picture television includes certain modes in teletext, broadcast videography (see § II.1.20), is still under study.

II.1.18 **Telematics (services),** *Télématique (services de), Telemática (servicios de)*

Telecommunication services supplementing conventional telegraphic or telephonic services, generally using teleprocessing techniques to permit a user to receive or send public or private information, or to effect operations such as file consultation, reservations, commercial or banking transactions.

Examples of telematics services: facsimile, teletex, videography, telewriting.

Note — Telematics services do not include broadcasting of sound or television programmes.

II.1.19 **Videography,** *Vidéographie, Videografía*

A form of telecommunication in which information, generally in the form of digital data, is transmitted primarily in order to permit the selection and display of textual or pictorial information to a user on a visual display unit, for instance on the screen of a television receiver.

Note — The teletex service and various forms of telegraphy are not forms of videography.

II.1.20 **Teletext, broadcast videography;** *Vidéographie diffusée, télétexte; Videografía radiodifundida, teletexto*

Videography in which information is broadcast utilizing the means of transmission used for normal television broadcasting and the desired part of this information may be selected by any user having suitable equipment.

Note 1 — Information may be transmitted simultaneously with normal television pictures.

Note 2 — The terms "teletext" and "teletex" refer to two different concepts.

Note by Secretariat — In CCIR Report 802, § 3.1, CCIR Study Group 11 has provided the following definition for a teletext service:

"A digital data broadcasting service which may be transmitted either within the structure of an analogue television signal or by using digital modulation systems. The service is primarily intended to display text or pictorial material in two—dimensional form reconstructed from coded data on the screens of suitably equipped television receivers."

II.1.21 **Videotex, interactive videography;** *Vidéotex, vidéographie interactive, Videotex, videografía interactiva*

Videography in which a telecommunication network is used for transmission of the user's requirements as well as the answers to his requests.

II.1.22 **Teletex** (service)**,** (service) *Télétex*, (servicio) *Teletex*

A telematics service for text transmission offering additional facilities to the telex service, in particular further typewriter functions and remote text processing facilities.

Note — The terms "teletex" and "teletext" refer to two different concepts.

II.1.23 **Video—telephony, viewphone, visual telephone;** *Visiophonie, vidéophonie* (deprecated); *Videofonía, videotelefonía*

An association of telephone and television techniques which allows users to see each other during their telephone conversation.

II.1.24 **Still—picture video—telephony,** *Visiophonie à images fixes, Videofonía de imágenes fijas*

Video—telephony in which the time interval between a displayed picture and the display of either an updated version of the same picture, or a new picture forming part of a sequence, exceeds (generally by an appreciable factor) the usual time interval between pictures.

II.1.25 **Teleconference,** *Téléconférence, Teleconferencia*

A conference between more than two participants located in two or more different places and utilizing telecommunication facilities.

II.1.26 **Audioconference,** *Audioconférence, Audioconferencia*

A teleconference in which participants are connected by telephone circuits; the transmission of other signals such as facsimile or telewriting signals may be possible in addition to speech signals.

II.1.27 **Videoconference,** *Visioconférence,* (vidéoconférence); *Videoconferencia*

A teleconference in which participants are connected by television circuits providing for the transmission of animated images in addition to that of speech and graphic documents.

II.1.28 **Telemetry, Telemetering;** *Télémesure; Telemedida*

A process in which measurements are made at some remote location and the results are transmitted by telecommunication.

II.1.29 **Telecommand,** *Télécommande, Telemando*

The transmission of signals to initiate, modify or terminate functions of distant equipment.

II.1.30 **Telecontrol,** *Téléconduite, Telecontrol*

The control of operational equipment at a distance using a combination of telemetry and telecomand.

II.1.31 **Teleguidance,** *Téléguidage, Teleguiaje*

The guidance and control of distant mobile craft by telecommunication.

II.1.32 **Telemonitoring,** *Télésurveillance, Telesupervisión*

The observation at a distance by telecommunication of industrial processes, operational equipment, natural phenomena or individuals.

II.1.33 **Remote alarm,** *Téléalarme, Telealarma*

The alerting of a central point by telecommunication to the occurrence of an unwanted situation or event.

II.1.34 **Broadcasting,** *Télédiffusion, Teledifusión*

A form of unidirectional telecommunication intended for a large number of users having appropriate receiving facilities, and carried out by means of radio or by cable networks.

Note — In English, it should be assumed that "broadcasting by radio waves" is intended where the word "broadcasting" is used without qualification, unless the context indicates the contrary.

Examples: Sound broadcasting or television broadcasting, teletext, the distribution of time signals and navigational warnings, the distribution of news from press agencies.

II.1.35 **Broadcasting** (service), *Radiodiffusion, Radiodifusión*

Radiocommunication in which transmissions are intended for direct reception by the general public; these may include sound transmissions, television transmissions and other types of transmission.

Note — By common usage in French and Spanish the meaning of "radiodiffusion" and "radiodifusión" is frequently restricted to "sound broadcasting".

II.1.36 **Sound broadcasting** (service), *Radiodiffusion sonore, Radiodifusión sonora*

A broadcasting service limited to sound programmes.

II.1.37 **Television broadcasting** (service), *Radiodiffusion visuelle,* (Radiodiffusion de) *télévision*, (Radiodifusión de) *Televisión*

A broadcasting service of visual programmes with associated sounds.

II.1.38 **Cabled distribution;** *Télédistribution, Câblodistribution (Canada), distribución por cable*

A form of telecommunication for the distribution of television or sound programmes over networks of cables to a number of users.

Note — Some systems may transmit other signals and provide return channels.

II.2 *Channels, circuits and networks*

II.2.1 **(Transmission) channel,** *Voie (de transmission), Canal (de transmisión)*

A means of transmission of signals in one direction between two points.

Note 1 — Several channels may share a common path; for example each channel is allocated a particular frequency band or a particular time slot.

Note 2 — In some countries the term "communication channel" or its abbreviation "channel" is also used to mean "telecommunication circuit", i.e. to encompass the two directions of transmission. This usage is deprecated.

Note 3 — A transmission channel may be qualified by the nature of the transmitted signals, or by its bandwidth, or by its digit rate; for example: telephone channel, telegraph channel, data channel, 10 MHz channel, 34 Mbit/s channel.

II.2.2 **Telephone—type channel,** *Voie de type téléphonique, Canal de tipo telefónico*

A transmission channel suitable for the transmission of speech but which is used for the transmission of other signals.

II.2.3 **(Telecommunication) circuit,** *circuit (de télécommunication), circuito (de telecomunicación)*

A combination of two transmission channels permitting transmission in both directions between two points, of the signals exchanged between the same terminals

Note 1 — If the telecommunication is by nature unidirectional, e.g. long—distance television transmission, the term "circuit" is sometimes used to designate the single transmission channel providing the facility, but this usage is deprecated.

Note 2 — A telecommunication circuit may be qualified by the nature or characteristics of the transmitted signals; for example: telephone circuit, telegraph circuit, data circuit, digital circuit.

Note 3 — Such characteristics of the transmission channels as bandwidth, digit rate, may be different in the two directions of transmission.

Note 4 — In telephony, usage of the term "telephone circuit" is generally limited to a telecommunication circuit directly connecting two switching centres.

II.2.4 **Telephone—type circuit,** *Circuit de type téléphonique, Circuito de tipo telefónico*

A pair of associated telephone—type channels permitting transmission in both directions between two points.

II.2.5 **(Frequency) channel,** *Canal (de fréquences), Canal (de frecuencias)*

Part of the frequency spectrum intended to be used for a transmission of signals and which may be defined by two specified limits, or by its centre frequency and the associated bandwidth, or by any equivalent indication.

Note 1 — A frequency channel may be time—shared in order to allow communication in both directions by simplex operation.

Note 2 — The use of the term "channel" to mean "telecommunication circuit" is deprecated.

Note 3 — The term "radio—frequency channel" used in radiocommunication is defined in CCIR Recommendation 573.

II.2.6 **Link,** *Liaison, Enlace*

A means of telecommunication with specified characteristics between two points.

Note — The type of the transmission path or the capacity is normally indicated, e.g. radio link, coaxial link, broadband link.

II.2.7 **Point—to—point communication,** *Communication point à point, Comunicacíon punto a punto*

Communication provided by a link between two specified fixed points.

II.2.8 **Point—to—multipoint communication,** *Communication point à multipoint, Comunicación punto a multipunto*

Communication provided by links between one specified fixed point and a number of specified fixed points.

II.2.9 **Point—to—area communication,** *Communication point à zone, Comunicación punto a zona*

Communication provided by links between one specified fixed point and any number of nonspecified points located in a given area.

Note — When point—to—area communication involves unidirectional links from a single fixed point to a number of points, this type of communication is commonly referred to as "broadcasting" (see § II.1.34).

II.2.10 **Telecommunication network, telecommunication system** (United States of America); *Réseau de télécommunication; Red de telecomunicación*

All the means of providing telecommunication services between a number of locations where equipment provides access to these services.

II.2.11 (Telecommunication) **terminal,** *Terminal* (de télécommunication), *Terminal* (de telecomunicación)

An equipment connected to a telecommunication network to provide access to one or more specific services.

Note — The term may be qualified to indicate the type of service or user, e.g. “data terminal”, “subscriber's terminal”.

II.2.12 **Subscriber's line, subscriber loop;** *Ligne d'abonné, ligne de rattachement; Línea de abonado, bucle de abonado*

A link between equipment in a subscriber's premises and the telecommunication centre providing the required services.

II.2.13 **Port** (of a network), *Accès* (d'un réseau), *Porte* (term not to be used in this sense); *Puerta* (de una red)

A termination through which signals can enter or leave a network.

II.2.14 **Transmission path,** *Trajet de transmission, Trayecto de transmisión*

The course taken by a signal during its transmission between two points.

II.2.15 **Interface,** *Interface, Interfaz*

A boundary between two systems or between two parts of the same system, defined by the specification of suitable characteristics, usually for the purpose of ensuring format, function, signal and interconnection compatibility at the boundary.

Note — An interface may be defined, for example, at a plug and socket connection, at the aperture of an antenna or between layers of a hierarchical system.

II.2.16 **Distribution link,** *Liaison de distribution, Enlace de distribución*

A link for the transmission of sound or television broadcasting programmes to the users, generally from a programme production centre, when no further post—production processing is intended.

II.2.17 **Primary distribution link,** *Liaison de distribution primaire, Enlace de distribucíon primaria*

The part of a distribution link from a programme production centre to either a broadcast transmitting centre or the head—end of a cabled distribution network.

II.2.18 **Secondary distribution link,** *Liaison de distribution secondaire, Enlace de distribución secundaria*

The part of a distribution link from the head—end of a cabled distribution network to the users.

II.2.19 **Contribution link,** *Liaison de contribution, Enlace de contribución*

A link for the transmission of sound or television broadcasting signals to a programme production centre.

II.3 *Use and operation of circuits and networks*

II.3.1 **Connection,** *Chaîne de connexion, Cadena de conexión*

A temporary association of transmission channels or telecommunication circuits, switching and other functional units set up to provide for the transfer of information between two or more points in a telecommunication network.

II.3.2 **(Complete) connection;** *Chaîne de connexion complète,* (Chemin de) communication; *Cadena de conexión completa, (camino de) comunicación*

A connection between users' terminals.

Note — In French and in Spanish, the terms “communication” and “comunicación”, have also a more general meaning (see § II.1.5).

II.3.3 **Switching** (in telecommunication), *Commutation* (en télécommunication), *Conmutación* (en telecomunicación)

The process of temporarily associating functional units, transmission channels or telecommunication circuits for the purpose of providing a desired telecommunication facility.

II.3.4 **Call attempt** (by a user), *(Tentative d') appel* (par un usager), *(Tentativa de) llamada* (por un usuario)

A single sequence of operations made by a user of a telecommunication network trying to obtain the desired user, terminal or service.

Note — This definition differs slightly from the definition of the same term which appears in CCITT Recommendation P.10 (§ 21 — Telephone calls description).

II.3.5 **Call,** *Communication, Comunicación*

The establishment and use of a complete connection, following a call attempt.

Note — In French and in Spanish, the terms “communication” and “comunicacíon”, have also a more general meaning (see § II.1.5).

II.3.6 **Conversation** (in telecommunication), *Conversation* (en télécommunication), *Conversación* (en telecomunicación)

An exchange of information between terminals.

II.3.7 **Code,** *Code, Código*

A system of rules defining a one—to—one correspondence between information and its representation by characters, symbols or signal elements.

II.3.8 **Modulation,** *Modulation, Modulación*

A process by which a quantity which characterizes an oscillation or wave follows the variations of a signal or of another oscillation or wave.

Note — Modulation may be intentional or unintentional.

II.3.9 **Carrier,** *Porteuse, Portadora*

An oscillation or wave, usually periodic, some characteristic of which is intended to be constrained by modulation to follow the values of a signal or of another oscillation.

II.3.10 **Carrier (component),** *(Composante) porteuse, Portadora (componente)*

In a modulated oscillation or wave, the spectral component having the frequency of the periodical oscillation or wave prior to modulation.

II.3.11 **Multiplexing,** *Multiplexage, Multiplexación*

A reversible process for assembling signals from several separate sources into a single composite signal for transmission over a common transmission channel; this process is equivalent to dividing the common channel into distinct channels for transmitting independent signals in the same direction.

II.3.12 **Demultiplexing,** *Démultiplexage, Demultiplexación*

A process applied to a composite signal formed by multiplexing, for recovering the original independent signals, or groups of these signals.

Note — Demultiplexing may be partial, for instance for extracting a group from a supergroup of telephone channels.

II.3.13 **Multiple access,** *Accès multiple, Acceso múltiple*

Any technique whereby a number of terminals are able to share the transmission capacity of a link in a predetermined manner or in accordance with traffic demand.

II.3.14 **Space division,** *Répartition spatiale, División espacial*

A technique whereby a separate individual transmission path is used for each transmission channel for example in multiplexing, switching or multiple access operations.

II.3.15 **Time division,** *Répartition temporelle, División en el tiempo*

A technique whereby a separate distinct recurrent time interval is used for each transmission channel, for example in multiplexing, switching or multiple access operations.

II.3.16 **Frequency division,** *Répartition en fréquence, répartition fréquentielle, Distribución en frecuencia*

A technique whereby a separate distinct frequency band is used for each transmission channel, for example in multiplexing, switching or multiple access operations.

II.3.17 **Code division,** *Répartition en code, División por código*

A technique whereby orthogonal signals are used to provide distinct transmission channels, for example in multiplexing, switching or multiple access operations; such signals being distinguishable even when they share the same frequency bands and the same time intervals.

II.3.18 **Simplex, half duplex** (deprecated); *Simplex, à l'alternat, semi—duplex* (deprecated in this sense); *Símplex, semiduplex*

Designating or pertaining to a method of operation in which information can be transmitted in either direction, but not simultaneously, between two points.

II.3.19 **Duplex, full duplex** (deprecated); *Duplex, bilatéral simultané; Dúplex*

Designating or pertaining to a mode of operation by which information can be transmitted in both directions simultaneously between two points.

II.3.20 **Unidirectional;** *Unilatéral, unidirectionnel, simplex* (term deprecated in this sense); *Unidireccional, unilateral*

Pertaining to a link where the transfer of user's information is possible in one preassigned direction only.

Note — This term should not be used to describe the direction of call set—ups.

II.3.21 **Bidirectional;** *Bilatéral, bidirectionnel, duplex* (term deprecated in this sense); *Bidireccional, bilateral*

Pertaining to a link where the transfer of users' information is possible simultaneously in both directions between two points.

Note 1 — The transmission channel capacity and signalling rate are not necessarily the same in both directions.

Note 2 — This term should not be used to describe the directions of call set—ups.

II.3.22 **One—way;** *à sens unique, spécialisé* (term deprecated in this sense); *de sentido único*

Pertaining to an operational mode in which the call set—ups always occur in one direction.

Note — This term should not be used to describe the direction of transfer of users' information.

II.3.23 **Both—way;** *A double sens, mixte; De doble sentido*

Pertaining to an operational mode in which the call set—ups occur in both directions.

Note 1 — The amount of traffic flowing is not necessarily the same in both directions.

Note 2 — These terms should not be used to describe the direction of transfer of users' information.

Note 3 — The term “two—way” is sometimes used in English in place of “both—way”; this usage is not recommended.

II.4 *Frequencies and bandwidths*

II.4.1 **Frequency band,** *Bande de fréquences, Banda de frecuencias*

A continuous set of frequencies lying between two specified limiting frequencies.

Note — A frequency band is characterized by two values which define its position in the frequency spectrum, for example, its lower and upper limiting frequencies.

II.4.2 **Frequency bandwidth,** *Largeur de bande* (de fréquences), *Anchura de banda* (de frecuencia)

The quantitative difference between the limiting frequencies of a frequency band.

Note 1 — The term "bandwidth" is usually associated with a qualification, for example:

— baseband bandwidth;

— necessary bandwidth;

— bandwidth of an amplifier or other device.

Note 2 — A bandwidth is defined by a single value and does not depend upon the position of the band in the frequency spectrum.

II.4.3 **Baseband,** *Bande de base, Banda de base*

1) The frequency band occupied by one signal, or by a number of multiplexed signals intended to be conveyed by a radio transmission system or a line transmission system.

Note 1 — In the case of radiocommunication, the baseband signal constitutes the signal modulating the transmitter.

Note 2 — The following definition proposed by the JCG in IEV Chapter 702, was also found to be acceptable.

2) That frequency band occupied by one signal or by a number of multiplexed signals at specified input and output points of a transmission system.

Note 1 — In the case of a radiocommunication, the baseband is that band which is occupied by the signal modulating the transmitter.

Note 2 — When the transmission involves multiple modulation, it is generally considered that the baseband is that band occupied by the signal which is applied to the first modulation stage and not the band occupied by an intermediate modulated signal.

II.4.4 *x* **dB bandwidth** (of a signal), *Largeur de bande «à x dB», Anchura de banda entre puntos a «x dB»*

The width of a frequency band such that beyond its lower and upper limits any spectral line or any power spectral density of the spectrum of a signal is at least x dB lower than a 0 dB reference level specified for the type of signal considered.

II.4.5 **Frequency departure,** *écart de fréquence, déviation de fréquence* (term deprecated in this sense); *desajuste de frecuencia*

An unintentional frequency separation from a stated frequency.

II.4.6 **Frequency shift,** *Déplacement de fréquence, Desplazamiento de frecuencia*

An intentional frequency change produced by modulation, or an unintentional change due to a natural phenomenon.

II.4.7 **Frequency drift,** *Dérive de fréquence, Deriva de frecuencia*

An undesired progressive and slow change in frequency with time.

II.4.8 **Frequency offset,** *Décalage de fréquence, Separacíon de la frecuencia*

A small intentional frequency change for purposes other than that of modulation.

Note — A frequency offset may be effected, for example, as a means of avoiding or minimizing interference.