INTERNATIONAL TELECOMMUNICATION UNION

ITU-T Q.1100

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

(03/93)

INTERWORKING WITH SATELLITE MOBILE SYSTEMS

INTERWORKING WITH STANDARD A INMARSAT SYSTEM – STRUCTURE OF THE RECOMMENDATIONS ON THE INMARSAT MOBILE SATELLITE SYSTEMS

ITU-T Recommendation Q.1100

(Previously “CCITT Recommendation”)

FOREWORD

The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the International Telecommunication Union. The ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Conference (WTSC), which meets every four years, established the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

ITU-T Recommendation Q.1100 was revised by the ITU-T Study Group XI (1988-1993) and was approved by the WTSC (Helsinki, March 1-12, 1993).

NOTES

1 As a consequence of a reform process within the International Telecommunication Union (ITU), the CCITT ceased to exist as of 28 February 1993. In its place, the ITU Telecommunication Standardization Sector (ITU-T) was created as of 1 March 1993. Similarly, in this reform process, the CCIR and the IFRB have been replaced by the Radiocommunication Sector.

In order not to delay publication of this Recommendation, no change has been made in the text to references containing the acronyms "CCITT, CCIR or IFRB" or their associated entities such as Plenary Assembly, Secretariat, etc. Future editions of this Recommendation will contain the proper terminology related to the new ITU structure.

2 In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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INTERWORKING WITH STANDARD A INMARSAT SYSTEM – STRUCTURE OF THE RECOMMENDATIONS ON THE INMARSAT MOBILE SATELLITE SYSTEMS

(Melbourne, 1988, modified at Helsinki, 1993)

1 General

This Recommendation gives an overview of those in the Q.1100-Series for interworking between the international public switched telephone network/ISDN and the INMARSAT mobile satellite systems. It also contains definitions of the terminology used in these Recommendations.

The interworking of all INMARSAT standard systems with the PSTN/ISDN is based on a common set of principles. However, due to the differences between the various INMARSAT standard signalling systems, the specific interworking procedures for each particular INMARSAT standard system is unique.

2 Terminology

For the purpose of this Recommendation, the following definitions apply:

2.1 **aeronautical (ground) earth station (GES)**: An earth station in the fixed-satellite service or, in some cases, in the aeronautical mobile-satellite service, located at a specified fixed point on land to provide a feeder link for the aeronautical mobile-satellite service (see *Radio Regulations*, Article 1).

2.2 **aircraft earth station (AES)**: A mobile earth station in the aeronautical mobile-satellite service located on board an aircraft (see *Radio Regulations*, Article 1).

2.3 **mobile satellite switching centre (MSSC)**: Indicates the signalling interworking point between the fixed networks and the mobile satellite system which works to a single ocean area. The MSSC may be located at the antenna site of the aeronautical ground earth station or coast earth station, in which case it may operate as an independent international switching centre (ISC) connected to one or more ISCs, on national switching centres. It may also be located remotely from the antenna site, as a supplement to, or a part of an ISC. The term MSSC may also indicate a maritime satellite switching centre, with an identical functional definition to the above.

2.4 **international switching centre (ISC)**: The exchange (at the end of an international circuit) which switches calls destined to or originating from another country.

2.5 **ship earth station (SES)**: A station in the maritime mobile satellite service intended to be used while in motion or during halts at unspecified points and which is located on board a ship (see *Radio Regulations*, Article 1).

2.6 **integrated services digital network (ISDN)**: An integrated digital network in which the same digital switches and digital paths are used to establish connections for different services, such as telephony, data, and so on (see the I-Series Recommendations).

2.7 **telephone user part (TUP)**: This defines the necessary telephone signalling functions for use of Signalling System No. 7 (SS No. 7) for international call control signalling. It is specified with the aim of providing the same feature for telephone signalling as other CCITT telephone signalling systems (see Recommendation Q.721).

2.8 **ISDN user part (ISUP)**: This encompasses the signalling functions in SS No. 7 required to provide switched services and user facilities for voice and non-voice applications in an ISDN (see Recommendation Q.761).

2.9 signalling connection control part (SCCP): This provides in SS No. 7 additional functions to the message transfer part to cater for both connectionless as well as connection oriented network services, to transfer circuit related, non-circuit related signalling information, and other types of information between exchanges and specialised centres in telecommunication networks (see Recommendation Q.711).

2.10 coast earth station (CES): An earth station operating in the fixed satellite service frequency bands or, in some cases, in the maritime mobile-satellite service frequency bands located at a specified fixed point on land to provide a feeder link for the maritime mobile-satellite service (see *Radio Regulations*, Article 1).

3 Overview of Recommendations

3.1 Recommendation Q.1101

Sets out the general requirements for interworking between the first generation (Standard A) INMARSAT system and the international public telephone network. A brief description of the INMARSAT Standard A system is also included.

3.2 Recommendation Q.1102

Specifies the interworking between the INMARSAT Standard A system and Signalling System R2.

3.3 Recommendation Q.1103

Specifies the interworking between the INMARSAT Standard A system and Signalling System No. 5.

3.4 Recommendation Q.1111

Provides information on services offered in the INMARSAT Standard B system, and describes the requirements for connection and internetworking with the public networks. A brief description of the Standard-B system is appended.

3.5 Recommendation Q.1112

Presents the procedures for interworking between the INMARSAT Standard B system and the signalling systems of the international public network.

3.6 Recommendation Q.1151

Provides information on the services offered in the INMARSAT aeronautical system and describes the requirements for connection and interworking with the public networks. A brief description of the aeronautical system is appended.

3.7 Recommendation Q.1152

Presents the procedures for interworking between the INMARSAT aeronautical system and the signalling systems of the international public network.