



FIRST MEETING OF STUDY GROUP 1: GENEVA, 10 - 12 SEPTEMBER 1998
FIRST MEETING OF STUDY GROUP 2: GENEVA, 7 - 9 SEPTEMBER 1998

Question 9/2: Identify study group Questions in the ITU-T and ITU-R Sectors which are of particular interest to developing countries and systematically, by way of annual progress reports, inform them of the progress of work on the Questions to facilitate their contributions to the work on those Questions as well as, ultimately, to benefit from their outputs in a timely manner

STUDY GROUP 2

SOURCE: ITU-R STUDY GROUP 8

TITLE: LIAISON STATEMENT TO THE TELECOMMUNICATION DEVELOPMENT BUREAU (BDT) AND ITU-D STUDY GROUP 2

The following Questions are brought to the attention of ITU-D Study Group 2.

Title	Rec No.	Attention of
Adaptation of mobile radiocommunication technology to the needs of developing countries	77-3/8	- ITU-R SG 3 - Telecommunication Standardization - Telecommunication Development Sector
Essential technical requirements of mobile earth stations for global and regional geostationary mobile-satellite service systems in the band 1 - 3 GHz	218/8	- ITU-T SG 12 - ITU-D SG 2

QUESTION ITU-R 77-3/8*

**ADAPTATION OF MOBILE RADIOCOMMUNICATION TECHNOLOGY
TO THE NEEDS OF DEVELOPING COUNTRIES**

(1986-1992-1993-1997)

The ITU Radiocommunication Assembly,

considering

- a) the Questions submitted by the Plan Committee for Latin America at its meeting in Paramaribo in December 1985, in accordance with Provision No. 93 of the International Telecommunication Convention (Nairobi, 1982);
- b) the work carried out by ITU-R Study Group 3 so far on radio propagation;
- c) the work carried out so far by Radiocommunication Study Group 8 on mobile radiocommunication systems, in particular the work under Question ITU-R 39/8 on International Mobile Telecommunications-2000 (IMT-2000)**;
- d) ITU-R IMT-2000 Recommendations, in particular Recommendation ITU-R M.819 on IMT-2000 for developing countries;
- e) that the frequency bands 1 885 - 2 025 MHz and 2 110 - 2 200 MHz are intended for use, on a worldwide basis, by administrations wishing to implement IMT-2000 systems, including the bands 1 980 - 2 010 and 2 170 - 2 200 MHz for the satellite component of IMT-2000;
- f) the rapid development and deployment of digital mobile systems for both "fixed" and mobile uses;
- g) the potential further improvement in the cost effectiveness of wireless access technologies for the provision of basic, essentially fixed, applications;
- h) Question ITU-R 140/9 on the use of cellular type mobile technologies in fixed wireless local loop applications;
- j) Question ITU-R 215/8 on wireless access local loop systems;
- k) Questions ITU-D 1/2, 2/2 and 4/2;
- l) the desirability of specific research and development activities to support the development of optimum low cost wireless access standards;
- m) the aggressive plans of many developing countries to enhance considerably their level of telecommunication access, which include major wireless access investments, and that these plans are primarily constrained by the cost of access;
- n) the potential increase in speed of deployment and provision of basic telecommunication services in the developing countries through the use of wireless access technology;
- o) that "fixed" applications of mobile technologies in developing countries may equal or exceed the mobile uses in those countries by the year 2000;
- p) ITU-T Recommendations and on-going work items that are relevant to this work,

* This Question should be brought to the attention of Radiocommunication Study Group 3 and of the Telecommunication Standardization and the Telecommunication Development Sectors.

** IMT-2000 is also known as Future Public Land Mobile Telecommunication Systems (FPLMTS).

decides that the following Question should be studied

1 How can the studies of IMT-2000 under Question ITU-R 39/8, and other current mobile technology developments, be best adapted to meet the urgent need of developing countries for cost effective access to the global telecommunication networks?

NOTE 1 – Particular emphasis should be given to the following items:

- modular design (easily expandable) for both hardware and software;
- universal protocols and standards for terminal-to-base station and base station-to-central control unit, etc.;
- standard equipment for land, maritime and aeronautical mobile use;
- harmonization of interworking of radio telecommunication systems with the public switched telephone network (PSTN);
- standardization of the use of the channels for control, voice and data;
- standardization of channel separation;
- standardization of frequency bands used.

2 What are the optimum arrangements and technical characteristics needed to use mobile technology/equipment (cellular type or others) in urban, rural or remote areas in developing countries?

NOTE 1 – Special attention should be paid to:

- the need to provide an economical, reliable and high-quality telecommunication infrastructure;
- propagation problems in building complexes, and mountainous, coastal and sandy desert areas;
- the possibility of using the equipment in a variety of environments including extreme of heat and cold, high humidity, dust, corrosive atmospheres and other environment hazards;
- the need for rugged, simple-to-maintain equipment;
- efficient and economical spectrum usage in local conditions where there may be only a small number of users and where severe propagation conditions may be encountered;
- the possibility of using satellite, and other radio systems,

further decides

1 that the results of the above studies should be included in one or more Recommendations;

2 that the results of the above studies should be completed by 1999.

QUESTION ITU-R 218/8*

**ESSENTIAL TECHNICAL REQUIREMENTS OF MOBILE EARTH STATIONS FOR
GLOBAL AND REGIONAL GEOSTATIONARY MOBILE-SATELLITE
SERVICE SYSTEMS IN THE BAND 1 - 3 GHz**

(1997)

The ITU Radiocommunication Assembly,

considering

- a) that existing and planned mobile-satellite service (MSS) systems, using satellites placed in the geostationary satellite orbit (GSO), would provide personal and broadband communications;
- b) that these GSO MSS systems currently offer or are expected to offer either regional or global services;
- c) that the free circulation of terminals within administrations is usually subject to a number of regulations including satisfactory type approval to an agreed technical standard;
- d) that the identification by the ITU-R of essential technical requirements for mobile earth stations operating within global and regional GSO MSS systems would provide a common technical basis for facilitating equipment approval by various national authorities and mutual recognition of MES type approvals between administrations;
- e) that transparency of essential technical requirements of the mobile earth stations promotes the introduction of MSS systems;
- f) that national and regional standardization bodies are working for the establishment of technical standards, for amongst other things, the type approval of mobile earth stations;
- g) that there is a need to protect safety services in the type approval of MES and that essential technical requirements should achieve an acceptable balance between equipment design and production cost and the need for effective use of the radio spectrum;
- h) that the World Telecommunication Policy Forum (WTPF-96) which addressed Global Mobile Personal Communications by Satellite (GMPCS) policy and regulatory issues, adopted Opinion No. 3, calling upon the three ITU Sectors, each within its competence, to initiate new studies or pursue current ones, and to reach conclusions as soon as practicable to facilitate the introduction of GMPCS on a global and regional basis,

* This Question should be brought to the attention of Study Group 12 of the Telecommunication Standardization Sector and Study Group 2 of the Telecommunication Development Sector.

decides that the following Question should be studied

1 What are essential technical requirements of mobile earth stations global and regional GSO MSS systems in the band 1 - 3 GHz?

further decides

- 1** that the results of the above studies should be included in one or more Recommendations;
 - 2** that the above studies should be completed by 1999.
-