

EUROPEAN COMMON PROPOSAL

Proposal submitted by the following administrations

[.....,,]

Agenda Item 1.19

Internet access via satellites

WRC-2007 Agenda item 1.19: *to consider the results of the ITU-R studies regarding spectrum requirements for global broadband satellite systems in order to identify possible global harmonised FSS frequency bands for the use of Internet applications, and consider the appropriate regulatory/technical provisions, taking also into account No. 5.516B of the Radio Regulations.*

Issue: This agenda item covers the following issues:

1. to consider the results of the ITU-R studies on global broadband satellite systems possibly to determine the spectrum requirements for the provision, on a worldwide basis, of satellite high-speed Internet services;
2. to identify, to the extent practicable, the globally/regionally harmonized frequency bands that may be used for the implementation of high-speed Internet,
3. to consider regulatory/technical provisions, as necessary, for the introduction of such applications taking into account the needs in particular of developing countries and those with sparsely populated areas.

Introduction: The Arab League proposed this agenda item at WRC-03 and the following background information has been extracted from this proposal (ARB/27A39/7). Bridging the “digital divide” is perceived as one of the top priorities for the international community today. One possible way to reduce this imbalance, and accelerate the delivery of information and communications technologies (ICT) throughout the world, could be to implement a technical and regulatory environment that aims to promote the provision of high-speed Internet namely in developing countries, including the least-developed countries, the land-locked and island countries, and economies in transition. Satellite communications have the advantage of being able to provide broadband services within a reasonable time-frame.

The proposed environment could hinge on the development of a global market for terminal equipment and broadband through adoption of a common technical standard, identification of orbital resources and frequency spectrum for the satellite systems willing to provide high-speed Internet, and implementation of a minimal regulatory environment.

The Radiocommunication Assembly (RA-03) approved a new Question (269/4), requesting ITU-R to study:

- the frequency spectrum requirements for the provision, on a worldwide basis, of high-speed Internet;
- the frequency bands that could be identified in the short-, medium- and long-term for the provision of high-speed Internet;
- the technical and operational characteristics that could facilitate the mass production of simple (VSAT) terminal equipment at affordable prices.

Satellite telecommunications technology has the potential to accelerate the availability of high-speed Internet. In addition, the international nature of satellite services benefits from international harmonization in the use of frequencies, and open and interoperable standards for user terminal equipment. For the purposes of global operations and economies of scale, there may be benefits to co-operate on common technical and frequency system parameters

Radio Regulation 5.516B The following bands are identified for use by high-density applications in the fixed-satellite service:

| | |
|-----------------|------------------------------------|
| 17.3-17.7 GHz | (space-to-Earth) in Region 1 |
| 18.3-19.3 GHz | (space-to-Earth) in Region 2 |
| 19.7-20.2 GHz | (space-to-Earth) in all Regions |
| 39.5-40 GHz | (space-to-Earth) in Region 1 |
| 40-40.5 GHz | (space-to-Earth) in all Regions |
| 40.5-42 GHz | (space-to-Earth) in Region 2 |
| 47.5-47.9 GHz | (space-to-Earth) in Region 1 |
| 48.2-48.54 GHz | (space-to-Earth) in Region 1 |
| 49.44-50.2 GHz | (space-to-Earth) in Region 1 |
| and | |
| 27.5-27.82 GHz | (Earth-to-space) in Region 1 |
| 28.35-28.45 GHz | (Earth-to-space) in Region 2 |
| 28.45-28.94 GHz | (Earth-to-space) in all Regions |
| 28.94-29.1 GHz | (Earth-to-space) in Region 2 and 3 |
| 29.25-29.46 GHz | (Earth-to-space) in Region 2 |
| 29.46-30 GHz | (Earth-to-space) in all Regions |
| 48.2-50.2 GHz | (Earth-to-space) in Region 2 |

This identification does not preclude the use of these bands by other fixed-satellite service applications or by other services to which these bands are allocated on a co-primary basis and does not establish priority in these Radio Regulations among users of the bands. Administrations should take this into account when considering regulatory provisions in relation to these bands. See Resolution **143 (WRC-03)**. (WRC-03)

Proposal:

NOC

Reasons:

The existing FSS allocations, including those identified for HDFSS applications in RR 5.516B, are capable of accommodating a wide range of satellite based multimedia applications including internet access. In fact, access to the internet using FSS satellite systems is currently being implemented in a number of FSS bands which are allocated on a global and regional basis. Use of the FSS frequency bands can be achieved most effectively when the user has maximum flexibility and the frequency bands are not restricted to specific applications.

In order to overcome some of the problems associated with IP transmission over satellite networks, such as signal delays and burst errors, ITU-R has developed methods and protocols for solving the problems in Recommendations ITU-R S.1709 and S.1711.

ITU-R has developed two draft new Recommendations supporting the development of broadband internet access via satellite: (1) ITU-R S.1782 - Possibilities for global broadband internet access by FSS systems; and (2) ITU-R S.1783 - Technical and operational features characterizing high-density applications in the fixed-satellite service (HDFSS).

The information provided in these recommendations is sufficient to satisfy this agenda item, and this is in line with the method proposed in the CPM text.