

## United States of America

### DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE

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

**Background Information:** WRC-03 adopted this agenda item which relates to the identification of globally harmonized fixed-satellite service frequency bands for broadband applications via satellite. It is important to note that all FSS frequency bands, including the bands, listed in No. 5.516B, can be and in many cases are used for internet applications.

ITU-R Working Party 4A has the lead in preparing the technical basis for this agenda item at WRC-07. It has carried out a number of studies at its last three meetings and has prepared draft CPM text. The studies have examined the issues associated with this agenda item. These include the question of harmonized frequency bands and the status of internet applications being implemented in FSS bands.

The initial global spectrum allocations for the Fixed Satellite Service (FSS) were made at WARC-71, and WARC-79. These included spectrum through the 20/30 GHz range. Additional global allocations to the FSS were made in the 40/50 GHz range at subsequent conferences. Many of these bands are heavily utilized delivering a diversity of services. The FSS allocations are being used by over 200 geostationary radiocommunication satellites including those indicated in No. 5.516B identified for use in high density applications. Most of the FSS allocations are global in nature and therefore harmonized in all three ITU-R Regions.

There has been a proliferation of different size earth stations for different types of applications during the over 25 years these allocations have been available. As these applications have evolved so too have the basic Radio Regulations to provide for them. Access to the internet using FSS satellite systems is being implemented in a number of ways. Examples are illustrated in the table below.

<b>Application</b>	<b>Bands</b>	<b>Example Terminal Size</b>
Direct-to Business or Residence	11/14 GHz 20/30 GHz	1.2 m 0.6 m
ESV	4/6, 11/14 GHz	2.4 m, 1.2 m
Bundled with TV Services	11/14 GHz 20/30 GHz	0.6-2.4 m 0.6 m
V-sat RLAN	11/14 GHz	0.6-2.4 m

As illustrated in the table there has been a variety of internet applications which have developed. These have taken place within the harmonized Regional allocations to the FSS. Today's service provider often initiates an internet service using only a few transponders (partial sections of a satellite) of a satellite for economic reasons rather than incurring the capital expense of a whole satellite for a single type of application. In addition, ground equipment suitable for broadband/Internet applications can be adapted to other bands, and as internet applications are being pursued in a wide range of FSS allocations, it would be counter-productive to identify any subset of frequencies especially for internet applications.

The current Radio Regulations for access, coordination and notification of satellite networks fully accommodate the ability of FSS systems to provide internet access. In addition, commercially available ground equipment suitable for broadband/internet applications is frequency agile and is fully capable of operating with the existing and planned FSS satellite systems in the allocated frequency bands.

**Proposal:**

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**Reason:** There are many existing and planned FSS satellite systems in a number of different FSS frequency bands that carry internet applications. They are in use and will continue to be used on a worldwide basis in the 4/6 GHz, 11/14 GHz, and 20/30 GHz allocations. The identification of specific FSS frequency bands for internet applications will not improve nor will it facilitate the provision of these applications. Consequently, no changes to the Radio Regulations are necessary.