

**NON-GEOSTATIONARY FIXED-SATELLITE SERVICE SYSTEMS
WITH SERVICE LINKS NEAR 20 AND 30 GHz¹**

The Third Meeting of the Permanent Consultative Committee III: Radiocommunications,

Considering:

That proposals have been submitted for non-geostationary fixed-satellite service systems;

That some Region 2 countries have need of broadband digital communications covering all parts of the Region, including rural and remote areas of each country;

That Region 2 countries through the CITEL forum and the ITU-R Study Groups have studied non-geostationary satellite systems.

Recognizing:

That non-geostationary satellite communications systems can provide universal access and have the ability to cover all parts of the region with uniform service;

That regulatory uncertainty exists with regard to the operation of non-geostationary systems with respect to geostationary fixed-satellite service systems,

Recognizing further:

That some CITEL member administrations have submitted proposals to use the 20 and 30 GHz fixed-satellite service allocations for feeder links for non-geostationary mobile-satellite service systems, taking into account requirements for other uses of these bands;

That currently developing satellite uses of the 20 and 30 GHz frequency bands, including geostationary fixed-satellite service systems and non-geostationary mobile-satellite service system feeder links, may make it increasingly difficult to implement non-geostationary fixed-satellite service systems, thus creating the need to preserve the option for non-geostationary fixed-satellite service systems to access spectrum in the 20 and 30 GHz frequency bands.

Recommends:

That CITEL Members consider the annexed Information Paper in their preparations for WRC-95;

That administrations consider the possibility of the designation of frequency sub-bands for non-geostationary fixed-satellite service systems with service links in bands near 20 and 30 GHz;

That interested CITEL Members consider adopting positions or developing proposals on this subject for WRC-95.

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ANNEX

Information Paper

Designation of Frequencies for Non-GSO Satellite Systems with FSS Service Links in the Frequency Bands 18.8 - 19.3 GHz and 28.6 - 29.1 GHz

1. Introduction

Non-geostationary (non-GSO) satellite communications systems have great benefit to all countries of the world because the inclined orbits of the satellites enable global coverage to be provided with universal access to the available communications services. A non-GSO broadband communication system can provide to rural, remote, or less developed areas the same quality and quantity of broadband digital connections to the Global Information Infrastructure as are available in the most developed cities of the world. The egalitarian nature of these systems allows countries to take advantage of the initial investment which establishes the worldwide system.

2. Need for Designation of Frequencies for Non-GSO Satellite Systems

Allocations currently exist for both fixed-satellite service (FSS) and mobile-satellite service (MSS) to operate in the frequency bands near 20 and 30 GHz. Both non-GSO and GSO systems may be implemented under these allocations. However, for non-GSO systems, Radio Regulation 2613 introduces regulatory uncertainty.

(RR2613 requires transmitters in non-GSO systems to “cease or reduce to a negligible level their emissions” whenever such emissions result in “unacceptable interference to geostationary-satellite space systems in the fixed-satellite service.”)

The possibility for a non-GSO system being required to turn-off its transmitters during its operational life introduces uncertainty that would preclude successful financing and development. For this reason proposals have been introduced to WRC-95 to 1) provide feeder links for non-GSO MSS systems, and 2) to provide for non-GSO FSS operation, at frequencies near 20 and 30 GHz.

To insure equitable access to the spectrum by non-GSO systems, it is required that RR2613 not be applied in the frequency sub-bands where non-GSO systems would operate. With RR2613 applied in these sub-bands, increasing use of the 20 and 30 GHz frequency bands by GSO systems would preclude effective use of these frequencies by non-GSO systems.

Since FSS already has primary allocations at 20 and 30 GHz, the only regulatory change required to support non-GSO development and operation is the indication by a footnote that certain sub-bands would be designated for non-GSO systems. The footnote would give due regard to GSO systems already in use. Additionally, coordination procedures would be specified under a modified Resolution 46.

3. Proposals

One administration has proposed: to designate 500 MHz each in uplink and downlink bands for non-GSO FSS use; to not apply RR2613 in those sub-bands; to take account of GSO FSS networks already in use; and to apply modified Resolution 46 for coordination and notification procedures.