UNITED STATES DEPARTMENT OF COMMERCE
National Telecommunications and Information Administration
Washington, D.C. 20230

February 24, 2005

Mr. Donald Abelson
Chief of the International Bureau
Federal Communications Commission
445 12th Street SW
Washington, D.C. 20554

Dear Mr. Abelson:

The National Telecommunications and Information Administration (NTIA), on behalf of the Executive Branch Agencies, has approved the release of a draft Executive Branch proposal for WRC-07. This proposal considers the federal agency inputs toward the development of United States Proposals for WRC-07.

The enclosure contains a draft proposal for agenda item 1.18. This proposal is forwarded for review by the Commission. Jim Vorhies of my staff is the primary contact for NTIA.

Sincerely,

Fredrick R. Wentland
Associate Administrator
Office of Spectrum Management

Enclosure

United States of America

DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE

Agenda Item 1.18[1]: to review the pfd limits in the band 17.7-19.7 GHz for satellite systems using highly inclined orbits, in accordance with Resolution **141 (WRC-03)**;

Background Information: The ITU-R has been considering sharing aspects for non-GSO systems using highly inclined orbits (HIOs), including systems in highly elliptical orbit, for a number of years. Several categories of non-GSOs are encompassed within the term "highly-inclined". WRC-95 adopted provisional limits on the pfd produced at the surface of the Earth by non-GSO satellites operating in the FSS (space-to-Earth) in the band 17.7-19.7 GHz in order to protect terrestrial services. These limits were revised at WRC-97 and WRC-2000. WRC-03 determined that no changes were needed to the pfd limits and associated provisions in Section **V** of Article **21** that were finalized at WRC-2000 for all non-GSO FSS systems in the 17.7-19.7 GHz band. WRC-03 adopted Resolution **141 (WRC-03)**, which invites the ITU-R to conduct studies to determine whether the current pfd limits in Article **21** for non-GSO systems in the FSS are adequate to protect the fixed service in the 17.7-19.7 GHz band from non-geostationary systems using HIOs. Resolution **141 (WRC-03)** also invites the ITU-R to determine whether there are technical and operational measures that could be implemented by the fixed service to mitigate interference from FSS space stations in HIO. Studies presented to the ITU in preparation for WRC-07 show conclusively that the current pfd limits in Table **21-4** of Article **21** are adequate to protect the fixed service in the 17.7-19.7 GHz band.

Proposal:

ARTICLE 21

Section V – Limits of power flux density from space stations

[1] **RCS – 1859/1**

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TABLE **21-4** *(continued)*

Frequency band	Service*	Limit in dB(W/m²) for angle of arrival (δ) above the horizontal plane			Reference bandwidth
		0°-5°	5°-25°	25°-90°	
17.7-19.3 GHz[7, 8]	Fixed-satellite (space-to-Earth) Meteorological-satellite (space-to-Earth)	–115 [13] or $-115 - X$ [12]	$-115 + 0.5(\delta - 5)$ [13] or $-115 - X + ((10 + X)/20)(\delta - 5)$ [12]	–105 [13] or –105 [12]	1 MHz
19.3-19.7 GHz 22.55-23.55 GHz 24.45-24.75 GHz 25.25-27.5 GHz	Fixed-satellite (space-to-Earth) Earth exploration-satellite (space-to-Earth) Inter-satellite	–115	$-115 + 0.5(\delta - 5)$	–105	1 MHz

Reasons: The current pfd limits and associated provisions in Section V of Article 21 are adequate to protect the fixed service in the 17.7 – 19.7 GHz band from non-GSO satellite systems, including those using highly-inclined orbits having an apogee altitude greater than 18 000 km and an orbital inclination between 35° and 145. Satellite networks using HIOs should continue to be considered as non-GSOs and have the same regulatory standing as other types of non-GSOs. No additional regulatory provisions are needed.

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RESOLUTION 141 (WRC-03)

Sharing between certain types of non-geostationary-satellite systems in the fixed-satellite service and stations in the fixed service in the 17.7-19.7 GHz band

Reasons: All of the actions required under this Resolution have been completed and it may be suppressed. The technical studies confirmed that the current pfd limits for non-GSO FSS systems in Article 21 are adequate to protect the fixed service in the 17.7-19.7 GHz band from non-GSO systems having an apogee altitude greater than 18 000 km and an orbital inclination between 35° and 145. There is no need to review or revise any findings made on the compliance with the limits contained in Article 21 of a non-GSO FSS system for which complete advance publication information has not been received prior to 5 July 2003 per the *instructs the Radiocommunication Bureau.*