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WRC-2003 Advisory Committee  
IWG-4

Additional Draft U.S. Proposals on Agenda Item 1.26

Agenda Item 1.26 "to consider provisions under which earth stations located on board vessels could operate in fixed satellite networks, taking into account the ITU-R studies in response to Resolution 82 (WRC-2000).

Background Information:

The Conference Preparatory text for WRC-03 provides information on 1) Analysis of studies; 2) Methods to Satisfy the agenda and 3) Regulatory and Procedural Considerations. In the first, the text notes that "to ensure the protection of the FSS networks, ESVS would also have to comply with off-axis limits given in Recommendation ITU-R S.524; these limits should be met under normal operating conditions."

In the last section it is also noted "by some administrations that under current Radio Regulations, the class of station and the category of allocation of both and space stations need to be matched with each other.

The paragraphs below are intended to address these issues. The first proposal is parallel to that in No. 1.68. In the second proposal the values for the band 5925-6425 MHz are taken from Recommendation ITU-R S.524, and the values for the band 14.0-14.5 GHz are taken from Recommendation ITU-R S.728.

Proposal

USA/1.26/7

ADD Article 1, Section IV

1.68 bis: earth station on board a vessel: An earth station operating in certain bands of the fixed satellite service located on board a vessel and intended to be used while in motion or during halts at unspecified points.

Reason: Adding this definition will ensure that the class of station and the category of allocation of both earth and space stations will be matched to each other.

A consequence of this definition may be the need to make reference to ESV in the definition of the FSS in No. 1.21.

USA/1.26/8

ADD Footnote 5.ESV

5.ESV

For earth stations on board vessels (see 1.68 bis) operating in the 5925-6425 MHz band, at any angle  $\varphi$  specified below, off the main-lobe axis of an earth-station antenna, the maximum e.i.r.p. in any direction within  $3^\circ$  of the GSO shall not exceed the following values:

<i>Angle off-axis</i>	<i>Maximum e.i.r.p. per 4 kHz band</i>
$2.5^\circ \leq \varphi \leq 7^\circ$	$(32 - 25 \log \varphi)$ dB(W/4 kHz)
$7^\circ < \varphi \leq 9.2^\circ$	11dB(W/4 kHz)
$9.2^\circ < \varphi \leq 48^\circ$	$(35 - 25 \log \varphi)$ dB(W/4 kHz)
$48^\circ < \varphi \leq 180^\circ$	- 7 dB(W/4 kHz)

For earth stations on board vessels (see 1.68 bis) operating in the 14.0-14.5 GHz band, at any angle  $\varphi$  specified below, off the main-lobe axis of an earth-station antenna, the maximum e.i.r.p. in any direction within  $3^\circ$  of the GSO shall not exceed the following values:

<i>Angle off-axis</i>	<i>Maximum e.i.r.p. in any 40 kHz band</i>
$2^\circ \leq \varphi \leq 7^\circ$	$33 - 25 \log \varphi$ dBW
$7^\circ < \varphi \leq 9.2^\circ$	12 dBW
$9.2^\circ < \varphi \leq 48^\circ$	$36 - 25 \log \varphi$ dBW
$\varphi > 48^\circ$	- 6 dBW

Coordination agreements between fixed-satellite service networks under Article 9, may result in lower off-axis e.i.r.p. levels.

Reason: In order to ensure that the off axis e.i.r.p. performance of ESVs operating in FSS networks is consistent with that of earth stations already operating in these networks in these bands, and to ensure efficient use of the GSO.