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

OCT 11 2002

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, on behalf of the Executive Branch Agencies, has approved the release of additional draft Executive Branch (NTIA) proposals for WRC-03. These proposals consider the federal agency inputs toward the development of U.S. Proposals for WRC-03.

The enclosure contains several proposals drafted by your WRC Advisory Committee. These proposals address agenda items 1.22, 1.33, 1.29, 1.21, 7.2, and 4. NTIA approved these proposals, but with some minor formatting and editorial changes. Jim Vorhies from my staff will contact Alexander Roytblat and reconcile any differences between NTIA and FCC views.

Sincerely,

Fredrick R. Wentland
Acting Associate Administrator
Office of Spectrum Management

Enclosure

United States of America

DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE[1]

Agenda Item 1.22: to consider progress of ITU-R studies concerning future development of IMT-2000 and systems beyond IMT-2000, in accordance with Resolution **228 (WRC-2000)**;

Background Information: WRC-2000 considered issues related to IMT-2000, resulting in the identification of additional spectrum for the terrestrial component of IMT-2000 in the Radio Regulations **5.317a** and **5.384a**. This spectrum was identified in addition to that initially identified for IMT-2000 at WARC-92 in footnote **5.388**. WRC-2000 also identified existing global mss allocations as being available for use by the satellite component of IMT-2000, in accordance with Resolution **225**.

In Resolution **228 (WRC-2000)**, the ITU-R was invited to continue studies on overall objectives, applications and technical and operational implementation for the future development of IMT-2000 and systems beyond. These requirements are to be reviewed by WRC-05/06, taking into consideration the results of ITU-R studies presented to WRC-03.

Proposal:

USA/ /1 **NOC**

ARTICLE 5

Frequency Allocations

Reasons: ITU-R has not completed the studies on spectrum requirements and potential frequency ranges suitable for the future development of IMT-2000 and systems beyond IMT-2000.

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[1] **Doc. WAC/140(05.09.02)**

United States of America

DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE[2]

WRC-03 Agenda Item 1.33: to review and revise technical, operational and regulatory provisions, including provisional limits in relation to the operation of high altitude platform stations within IMT-2000 in the bands referred to in No. **5.388A**, in response to Resolution **221 (WRC-2000)**;

Background Information: Provisions for operation of HAPS were originally made at WRC-97, for HAPS providing FS operations in the 47.2–47.5 GHz and 47.9–48.2 GHz bands (**5.552A**). A definition of HAPS was also added to **1.66A**. The use of HAPS as base stations to provide terrestrial IMT-2000 was approved at WRC-2000, resulting in provisions to facilitate this being added to the Radio Regulations (**5.388A**). In accordance with No. **5.388A**, HAPS may be used as base stations within the terrestrial component of IMT-2000 in the bands 1 885-1 980 MHz, 2 010-2 025 MHz and 2 110-2 170 MHz in Regions 1 and 3 and 1 885-1 980 MHz and 2 110-2 160 MHz in Region 2; the use by IMT-2000 applications using HAPS as base stations does not preclude the use of these bands by any station in the services to which they are allocated and does not establish priority in the Radio Regulations.

Resolution **221** from WRC-2000 includes provisional co-channel and out-of-band power-flux density limits for HAPS operation, for the protection of other stations either sharing the same band or operating in adjacent bands and asked for additional technical, operational and regulatory studies to be conducted, in order to review and, if necessary, revised, these limits. Resolution **221** also asks for consideration of appropriate regulatory and technical provisions to allow bilateral co-ordination of HAPS in an IMT-2000 system with affected neighbouring administrations.

Based on updated information on typical noise figure of IMT-2000 mobile stations, WP-8F updated the protection requirement of other IMT-2000 stations operating co-frequency has been revised to -117 dB (W/(m^2·MHz)). This PFD threshold is appropriate to protect other IMT-2000 mobile stations from co-channel interference.

In order to adequately protect MMDS within IMT-2000 in some neighbouring countries in Region 2 in the band 2 150-2 160 MHz from co-channel interference, a HAPS operating as a base station to provide IMT-2000 shall not exceed the following co-channel pfd at the Earth's surface outside an administration's borders unless agreed otherwise by the administration of the affected neighbouring country:

– 127 dB(W/(m^2·MHz))for angles of arrival (θ) less than 7° above the horizontal plane;

– 127+ 0.666 (θ – 7) dB(W/(m^2·MHz))for angles of arrival between 7° and 22° above the horizontal plane; and

– 117 dB(W/(m^2·MHz)) for angles of arrival between 22° and 90° above the horizontal plane.

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[2] **Doc. WAC/141(05.09.02)**

It is to be noted that the above is an issue concerning the protection from co-channel interference of certain stations in some neighbouring countries in Region 2 only.

Proposal:

USA/ /1 **MOD**

RESOLUTION 221 (WRC-20~~00~~03)

Use of high altitude platform stations as base stations providing IMT-2000 in the bands 1 885-1 980 MHz, 2 010-2 025 MHz and 2 110-2 170 MHz in Regions 1 and 3 and 1 885-1 980 MHz and 2 110-2 160 MHz in Region 2

The World Radiocommunication Conference ~~(Istanbul, 2000),~~(Geneva, 2003),

considering

a) that the bands 1 885-2 025 MHz and 2 110-2 200 MHz are identified in No. **5.388** as intended for use on a worldwide basis for International Mobile Telecommunications-2000 (IMT-2000), including the bands 1 980-2 010 MHz and 2 170-2 200 MHz for both the terrestrial and the satellite component of IMT-2000;

b) that a high altitude platform station (HAPS) is defined in No. **1.66A** as "a station located on an object at an altitude of 20 to 50 km and at a specified, nominal, fixed point relative to the Earth";

c) that HAPS may offer a new means of providing IMT-2000 services with minimal network infrastructure as they are capable of providing service to a large footprint together with a dense coverage;

d) that the use of HAPS as base stations within the terrestrial component of IMT-2000 is optional for administrations, and that such use should not have any priority over other terrestrial IMT-2000 use;

e) that in accordance with No. **5.388** and Resolution **212 (Rev.WRC-97)**, administrations may use the bands identified for IMT-2000, including the bands referred to in this Resolution, for stations of other primary services to which they are allocated;

f) that these bands are allocated to the fixed and mobile services on a co-primary basis;

~~*g)* that ITU-R has studied sharing and coordination between HAPS and other stations within IMT-2000, has considered compatibility of HAPS within IMT-2000 with some services having allocations in the adjacent bands, and has established Recommendation ITU-R M.1456;~~

~~*h)* that ITU-R did not address sharing and coordination between HAPS and some existing systems, particularly PCS (personal communications service), MMDS (multichannel multipoint~~

~~distribution system) and systems in the fixed service, which are currently operating in some countries in the bands 1 885-2 025 MHz and 2 110-2 200 MHz;~~

~~*i)*~~*g)* that in accordance with No. **5.388A**, HAPS may be used as base stations within the terrestrial component of IMT-2000 in the bands 1 885-1 980 MHz, 2 010-2 025 MHz and 2 110-2 170 MHz in Regions 1 and 3 and 1 885-1 980 MHz and 2 110-2 160 MHz in Region 2; the use by IMT-2000 applications using HAPS as base stations does not preclude the use of these bands by any station in the services to which they are allocated and does not establish priority in the Radio Regulations,

~~*recognizing*~~

~~that the values in *resolves* 1 may not be appropriate for the protection of some stations operating in these bands in the fixed and mobile services,~~

h) that ITU-R has studied sharing and coordination between HAPS and other stations within IMT-2000, has considered compatibility of HAPS within IMT-2000 with some services having allocations in the adjacent bands, and has established Recommendation ITU-R M.1456;

i) that ITU-R has addressed sharing and coordination between HAPS and some existing systems, particularly PCS (personal communications service), MMDS (multichannel multipoint distribution service) and systems in the fixed service, which are currently operating in some countries in the bands 1 885-2 025 MHz and 2 110-2 200 MHz;

j) that HAPS stations are intended to transmit in the band 2 110-2 170 MHz in Regions 1 and 3 and in the band 2110-2160 MHz in Region 2

resolves

1 that:

1.1 for the purpose of protecting~~certain~~ IMT-2000 mobile stations operating~~within IMT-2000~~ in neighbouring countries from co-channel interference, a HAPS operating as a base station to provide IMT-2000 shall not exceed a ~~provisional~~ threshold of co-channel power-flux density (pfd) of ~~−121.5 dB(W/(m^2 · MHz))~~ −117 dB (W/(m^2 · MHz)) at the Earth's surface outside an administration's borders unless agreed otherwise by the consulted administration of the affected neighbouring country;

~~1.2 a HAPS operating as a base station to provide IMT-2000, in order to protect fixed stations from interference, shall not exceed the following provisional values of out-of-band pfd at the Earth's surface in the bands 2 025-2 110 MHz:~~

1.2 for the purpose of protecting MMDS stations in some neighbouring countries in Region 2 in the band 2 150-2 160 MHz from co-channel interference, a HAPS operating as a base station to provide IMT-2000 shall not exceed the following co-channel power-flux density (pfd) threshold at the Earth's surface outside an administration's borders unless agreed otherwise by the consulted administration of the affected neighbouring country:

~~165 dB(W/(m^2 · MHz))~~ −127 dB(W/(m^2 · MHz)) for angles of arrival (θ) less than ~~5°~~7° above the horizontal plane;

$-127 + 0.666\ (\theta - 7)$ dB(W/(m^2 · MHz)) for angles of arrival between 7° and 22° above the horizontal plane; and

-117 dB(W/(m^2 · MHz)) for angles of arrival between 22° and 90° above the horizontal plane;

~~165 1.75 (θ – 5) dB(W/(m^2 · MHz)) for angles of arrival between 5° and 25° above the horizontal plane; and~~

~~130 dB(W/(m^2 · MHz)) for angles of arrival between 25° and 90° above the horizontal plane;~~

1.3 a HAPS operating as a base station to provide IMT-2000, in order to protect fixed stations from interference, shall not exceed the following limits of out-of-band power-flux density (pfd) at the Earth's surface in the bands 2 025-2 110 MHz:

-165 dB(W/(m^2 • MHz))for angles of arrival (θ) less than 5° the horizontal plane;

$-165 + 1.75\ (\theta - 5)$ dB(W/(m^2 • MHz)) for angles of arrival between 5° and 25° above the horizontal plane; and

-130 dB(W/(m^2 • MHz)) for angles of arrival between 25° and 90° above the horizontal plane;

~~2 that, as of the end of WRC-03, such a HAPS shall operate only in accordance with such limits as are confirmed or, if appropriate, revised by WRC-03, irrespective of its date of bringing into use;~~

2 that, as of the end of WRC-03, such a HAPS shall operate only in accordance with such power-flux density (pfd) values as are confirmed by WRC-03, irrespective of its date of bringing into use;

3 that the consultation with neighboring administrations, as mentioned in *Resolves* 1, be conducted taking into account ITU-R Rec.[(HAPS_CON)] under development;

~~4 that administrations wishing to implement HAPS within a terrestrial IMT-2000 system shall, prior to their bringing into use, take into account in their bilateral coordination with affected neighbouring administrations the operation and growth of existing and planned systems in the fixed and mobile services having allocations on a primary basis;~~

~~3~~4 that administrations wishing to implement HAPS within a terrestrial IMT-2000 system shall comply with the following:

~~3~~4.1 for the purpose of protecting certain stations operating within IMT-2000 in neighbouring countries from co-channel interference, administrations using HAPS as base stations within IMT-2000 shall use antennas that comply with the following antenna pattern:

$G(\psi) = G_m - 3(\psi/\psi_b)^2$ dBi for $0° \leq \psi \leq \psi_1$

$G(\psi) = G_m\ L_N$ dBi for $\psi_1 < \psi \leq \psi_2$

$G(\psi) = X - 60 \log(\psi)$ dBi for $\psi 2 < \psi \leq \psi 3$

$G(\psi) = L_F$ dBi for $\psi 3 < \psi \leq 90°$

where:

$G(\psi)$:gain at the angle ψ from the main beam direction (dBi)

G_m :maximum gain in the main lobe (dBi)

ψb : one-half of the 3 dB beamwidth in the plane considered (3 dB below G_m) (degrees)

L_N : near side-lobe level in dB relative to the peak gain required by the system design, and has a maximum value of –25 dB

L_F :far side-lobe level, G_m – 73 dBi

$\psi 1 = \psi b \sqrt{-L_N/3}$ degrees

$\psi 2 = 3.745\ \psi b$ degrees

$X = G_m\ L_N + 60 \log(\psi 2)$ dBi

$\psi 3 = 10^{(X - L_F)/60}$ degrees

The 3 dB beamwidth ($2\psi b$) is again estimated by:

$(\psi b)^2 = 7\ 442/(10^{0.1 G_m})$ degrees^2

where G_m is the peak aperture gain (dBi);

~~3~~4.2 for the purpose of protecting mobile earth stations within the satellite component of IMT-2000 from interference, a HAPS operating as a base station to provide IMT-2000, shall not exceed an out-of-band pfd of –165 dB(W/(m^2 · 4 kHz)) at the Earth's surface in the bands 2 160-2 200 MHz in Region 2 and 2 170-2 200 MHz in Regions 1 and 3;

4~~5~~ that administrations wishing to implement HAPS within a terrestrial IMT-2000 system shall, prior to their bringing into use, take into account in their bilateral coordination with affected neighbouring administrations the operation and growth of existing and planned systems in the fixed and mobile services having allocations on a primary basis;

~~5~~6 that, for the purpose of protecting fixed service stations operating in neighbouring countries from co-channel interference, administrations wishing to implement HAPS within a terrestrial IMT-2000 system shall~~, pending the review by WRC-03 of the studies mentioned below,~~ take full account of the relevant ITU-R Recommendations relating to protection values for fixed stations (see Recommendation ITU-R F.758),

~~*invites ITU-R*~~

~~1 to complete, as a matter of urgency, additional regulatory, operational and technical studies on sharing criteria for HAPS with other systems in the bands 1 885-1 980 MHz, 2 010-2 025 MHz and 2 110-2 170 MHz in Regions 1 and 3 and 1 885-1 980 MHz and 2 110-2 160 MHz in Region 2, and in adjacent bands, so as to allow revision of the values in *resolves* 1;~~

~~2 to develop appropriate regulatory and technical provisions to allow the coordination mentioned in *resolves* 4;~~

~~3 to report on the results of these studies in time for consideration by WRC-03.~~

Reasons: The ITU-R has addressed sharing and coordination between HAPS and existing systems, particularly IMT-2000 stations operating in adjacent countries and MMDS (multichannel multipoint distribution service), which are currently operating in the bands 1 885-2 025 MHz and 2 110-2 200 MHz. The resolution is being modified to reflect the conclusions of the studies and the PFD thresholds required updating. Some of the proposed "block" edits to Resolution **221** are merely to re-organize the text into a more logical manner.

United States of America

DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE[3]

Agenda Item 1.29: to consider the results of studies related to Resolutions **136 (WRC-2000)** and **78 (WRC-2000)** dealing with sharing between non-GSO and GSO systems;

Background Information: Resolution **136** invited the ITU-R to undertake the appropriate technical, operational, and regulatory studies on sharing arrangements in order to achieve an appropriate balance between GSO FSS networks and non-GSO FSS systems in the 37.5-50.2 GHz frequency range.

Both GSO FSS networks and non-GSO FSS systems are planned for operation within the 37.5-42.5 GHz and 47.2-50.2 GHz bands. FSS systems based on the use of new technologies associated with both geostationary and non-geostationary orbits are capable of providing both the most densely populated and the most isolated regions of the world with high capacity and low-cost means of communications. WRC-2000, recognizing that there had been little or no deployment of satellite systems in the band 37.5-50.2 GHz, correctly concluded in Resolution **136 (WRC-2000)** that both GSO FSS and non-GSO FSS operators should be expected to exhibit flexibility in achieving the appropriate balance in the sharing environment, and urged administrations, in the application of Article **22** to their GSO FSS networks and non-GSO FSS systems in this range prior to WRC-03, to seek balanced sharing arrangements. Since WRC-2000, progress was made in compiling information on the characteristics of both GSO networks and non-GSO FSS systems planned to operate in the 40/50 GHz bands. At the same time, it was recognized that if no techniques were employed to avoid direct coupling between the main beams of satellites in a non-GSO system and the main beams of earth stations in a GSO network, and vice versa, during the short periods when "in-line" transitions occur, the interference in both directions, which is likely to be modest for the majority of the time, would rise sharply by many dB for short periods aggregating to small percentages of time.

To date the ITU-R work done for the 40/50 GHz bands has been fairly limited. One new recommendation discusses the use of orthogonal polarizations and other techniques as potential means of sharing between GSO networks and non-GSO systems in this frequency range. However, the levels of acceptable interference for GSO FSS networks and non-GSO systems were not fully assessed. Moreover potentially available mitigation techniques such as satellite diversity or arc avoidance, geographic isolation between earth stations, etc., cannot be easily translated into regulatory provisions that may require the development of a set of epfd masks to protect GSO FSS networks and of off-axis e.i.r.p. density masks to protect non-GSO FSS systems.

In most cases sharing between a GSO FSS network and a non-GSO FSS system of the LEO or MEO type will be feasible only if mitigation techniques to avoid main beam-to-main beam coupling of "in-line" interference are applied. Such techniques could include, for example:

- Satellite diversity or arc avoidance;

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[3] **Doc. WAC/143(05.09.02) Draft Proposal for Resolution 136 (WRC-2000)**

- Geographical isolation between earth stations;
- Adaptive coding;
- Link balancing
- Use of orthogonal polarizations.

It is considered premature to conclude on the advantages and disadvantages of each technique until the further studies have been accomplished. There is no need for modifications in Article 22 at this time. Instead, modification of Resolution **136 (WRC-2000)** is required to reflect a new date for completion of studies and action by a future Conference, and the addition of an appropriate item to a future WRC agenda.

Proposal:

USA/ /1 MOD

RESOLUTION 136 (WRC-2000REV WRC-03)

Frequency sharing in the range 37.5-50.2 GHz between geostationary fixed-satellite service networks and non-geostationary fixed-satellite service systems

The World Radiocommunication Conference (~~Istanbul, 2000~~Geneva, 2003)

considering

a) that ~~this Conference has~~WRC-2000 made provisions for the operation of geostationary fixed-satellite service (GSO FSS) networks and non-GSO FSS systems in the 10-30 GHz frequency range;

b) that there is an emerging interest in operating GSO FSS networks and non-GSO FSS systems in the 37.5-50.2 GHz range;

c) that there is a need to provide for the orderly development and implementation of new satellite technologies in the 37.5-50.2 GHz frequency range;

d) that systems based on the use of new technologies associated with both GSO FSS networks and non-GSO FSS systems are capable of providing the most isolated regions of the world with high-capacity and low-cost means of communication;

e) that there should be equitable access to the radio frequency spectrum and orbital resources in a mutually acceptable manner that allows for new entrants in the provision of services;

f) that the Radio Regulations should be sufficiently flexible to accommodate the introduction and implementation of innovative technologies as they evolve;

g) that ~~the CPM Report to WRC-2000 stated that~~ in the bands 37.5-50.2 GHz, where there has been little or no deployment of satellite systems to date, both GSO FSS and non-GSO FSS operators should be expected to exhibit flexibility in achieving the appropriate balance in the sharing environment~~,~~;

h) that this Conference, having considered the outcome of ITU-R studies on this subject as summarized in the CPM Report to this Conference, decided that further studies are needed before the conditions for non-GSO FSS systems to share these bands with GSO FSS systems can reliably be determined,

resolves to urge administrations

in the application of Article **22** to their GSO FSS networks and non-GSO FSS systems in the 37.5-50.2 GHz frequency range prior to WRC-~~03~~06, to seek balanced sharing arrangements between these systems,

invites ITU-R

~~1~~ to undertake, as a matter of urgency, ~~the appropriate~~ further technical, operational and regulatory studies on sharing arrangements which achieve an appropriate balance between GSO FSS networks and non-GSO FSS systems in the frequency range 37.5-50.2 GHz. Such further studies should embrace, but not necessarily be limited to:

a) Techniques which individually or in combination avoid, or otherwise adequately mitigate, main beam-to-main beam coupling of interference in both directions between non-GSO FSS and GSO FSS systems at "in-line" instants. The studies should be based on the key parameters of systems firmly planned to operate in the bands concerned, and should be pursued sufficiently far to establish appropriate long-term and short-term interference criteria and to compute the time statistics of interference from non-GSO system to GSO network, and from GSO network to non-GSO system, to determine whether those criteria would be met. The computations and comparisons should be made firstly assuming no mitigation, and subsequently with each of the various mitigation techniques or combinations of mitigation techniques envisaged. The mitigation techniques thus investigated should include:

- Satellite diversity or arc avoidance.
- Geographical isolation between earth stations.
- Site diversity.
- Adaptive coding.
- Link balancing.
- Opposite polarizations for GSO and non-GSO systems.
- Other appropriate techniques, if any.

b) The development of technical, operational and regulatory guidance which would enable WRC-06 to decide whether or not to include, in the Radio Regulations, epfd limits on non-GSO FSS systems for the protection of GSO FSS networks, and off-axis e.i.r.p. density limits on earth stations in GSO FSS networks for the protection of non-GSO FSS systems, in the frequency range 37.5-50.2 GHz. Such guidance should include quantitative values for suitable epfd$_{\downarrow}$, epfd$_{\uparrow}$ and off-axis e.i.r.p. density limits;

~~2 to report the results of these studies to WRC-03.~~

instructs the Director of the BR

to report the results of these studies to WRC-06.

Reasons: To allow additional time for the completion of the necessary ITU-R studies.

United States of America

DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE[4]

WRC-03 Agenda Item 1.21: to consider progress of the ITU-R studies concerning the technical and regulatory requirements of terrestrial wireless interactive multimedia applications, in accordance with Resolution **737 (WRC-2000)**, with a view to facilitating global harmonization;

Background Information: At WRC-2000, a proposal from several European administrations indicated a desire to address spectrum for terrestrial wireless interactive multimedia applications. After much discussion, WRC-2000 adopted Resolution **737,** which invites the ITU-R to pursue studies to facilitate the development of common, worldwide spectrum allocations or identifications suitable for new terrestrial wireless interactive multimedia (TWIM) technologies and applications; review the regulatory methods and appropriate means to facilitate the worldwide harmonization of spectrum for terrestrial wireless interactive multimedia, and to review service definitions in the light of convergence of applications, if necessary. In addition, WRC-2000 adopted agenda item 1.21 so that WRC-03 could review the progress of these studies and agenda item 2.15 for WRC-2005/6 to discuss the spectrum and regulatory issues associated with TWIM applications.

Studies on TWIM applications were managed by Joint Task Group 1-6-8-9 and carried out through a well-coordinated process since WRC-2000, drawing on a variety of resources and contributors. The results of the Joint Task Group's effort indicate that no regulatory impediments to TWIM applications exist, suggesting that no further ITU-R work is needed on the TWIM concept. This conclusion is reflected in Method B under section 7.1.3 (Methods to satisfy the agenda item) of the Draft CPM Report.

Proposal:

USA/ /1 **NOC**

Reasons: No regulatory impediments have been identified to terrestrial wireless interactive multimedia applications. Study groups within ITU-R may prepare relevant Questions and continue their work under the normal activities in order to examine any issues related to the deployments of terrestrial wireless interactive multimedia applications.

USA/ /2 **SUP**

Resolution 737 (WRC-2000)

Review of Spectrum and Regulatory Requirements to Facilitate Worldwide Harmonization of Emerging Terrestrial Wireless Interactive Multimedia Applications

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4 Doc. WAC/139(05.09.02)

Reasons: No regulatory impediments have been identified to terrestrial wireless interactive multimedia applications. Study groups within ITU-R may prepare relevant Questions and continue their work under the normal activities in order to examine any issues related to the deployments of terrestrial wireless interactive multimedia applications.

United States of America

DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE[5]

Agenda Item 7.2: to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, taking into account Resolution **801 (WRC-2000);**

Background Information: Resolution **801**, agenda item 2.15 reads, "to review, with a view to identifying necessary spectrum for global harmonization, spectrum and regulatory issues related to terrestrial wireless interactive multimedia applications in accordance with Resolution **737 (WRC-2000)**".

Agenda item 2.15 should be suppressed. During the period between WRC-2000 and WRC-03, Joint Task Group 1-6-8-9 conducted a thorough review of the issues relating to terrestrial wireless interactive multimedia applications. It found no regulatory impediments to terrestrial wireless interactive multimedia applications, and did not recognize a need for identifying spectrum for global harmonization. No further action is necessary or appropriate.

Proposal:

USA/ /1 **MOD**

RESOLUTION 801 (WRC-2003)

Aagenda for the ~~2005/~~2006 World Radiocommunication Conference

The World Radiocommunication Conference ~~(Istanbul, 2000),~~ (Geneva, 2003),

Reasons: Editorial

resolves to give the view

USA/ /2 **SUP**

2.15 to review, with a view to identifying necessary spectrum for global harmonization, spectrum and regulatory issues related to terrestrial wireless interactive multimedia applications in accordance with Resolution **737 (WRC-2000);**

Reasons: Review of the issues associated with terrestrial wireless interactive multimedia applications has been completed. That review indicates that no regulatory impediments exist to terrestrial wireless interactive multimedia applications, and no spectrum needs to be identified.

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[5] **Doc. WAC/148(05.09.02)**

United States of America

DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE[6]

WRC-03 Agenda Item 7.2: to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, taking into account Resolution **801 (WRC-2000)**,

Background Information: The identification of certain frequency bands for HAPS operating as base stations to provide terrestrial IMT-2000 was made at WRC-2000, resulting in provisions to facilitate this being added to the Radio Regulations (**5.388A**). Resolution **221** from WRC-2000 includes provisional co-channel and out-of-band power-flux density limits for HAPS operation, for the protection of other stations either sharing the same band or operating in adjacent bands.

Resolution **221** asked for additional technical, operational and regulatory studies to be conducted, in order to review and, if necessary, revise, these limits. Resolution **221** also asked for consideration of appropriate regulatory and technical provisions to allow bilateral co-ordination of HAPS in an IMT-2000 system with affected neighbouring administrations.

Based on the results of ITU-R studies, WRC-2003 is expected to adopt technical and operational provisions, including revised PFD thresholds for the operation of high altitude platform stations (HAPS) within IMT-2000 in the bands referred to in No. **5.388A**. The technical factors that should be considered during such a consultation are the subject of a PDNR at Working Party 8F (WP8F/TEMP/277). Provisional regulatory provisions for HAPS are also expected to be adopted.

Proposal:

USA/ /1 **MOD**

RESOLUTION 801 (WRC-2003)

Aagenda for the ~~2005/~~2006 World Radiocommunication Conference

The World Radiocommunication Conference ~~(Istanbul, 2000),~~ (Geneva, 2003),

Reasons: Editorial

resolves to give the view

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[6] **Doc. WAC/131(22.07.02) (HAPS at 2 GHz)**

USA/ /2 ADD

2.xx to review the provisional regulatory provisions, notification and the consultation process in relation to the operation of high altitude platform stations (HAPS) within IMT-2000 in the bands referred to in No. **5.388A**, in response to Resolution **221 ([WRC-2003])** with a view toward incorporating the provisions into the Radio Regulations.

Reasons: Provisional regulatory provisions for HAPS within IMT-2000 are likely to be adopted by WRC-2003. These procedures are likely to be contained in a modification to Resolution **221** and will define a notification and consultation process. Neighboring administrations will be consulted if the power-flux density (pfd) thresholds are exceeded on their territory.

United States of America

DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE[7]

WRC-03 Agenda Item 4: in accordance with Resolution **95 (Rev.WRC-2000)**, to review the resolutions and recommendations of previous conferences with a view to their possible revision, replacement or abrogation;

Background Information: Recommendation **719** was agreed at WARC-92. It concerned multi-service satellite networks using the geostationay-satellite orbit and it recognized that, at that time, some administrations had expressed an interest in developing multi-service satellite networks in certain portions of the Ka-band. Related studies on the technical characteristics and sharing criteria necessary for compatible operations between multi-service satellite networks and the fixed-satellite service were carried out by WP-4A in 1994 and the results of these studies indicated the difficulty associated with sharing between the multiple services of the FSS and the MSS in the same frequency allocation, e.g., 19.7-20.2 GHz/29.5-30.0 GHz.

Little work has been done within the ITU-R on this subject since that time. As a consequence of the initial ITU-R studies, there appears to be little ongoing interest on the part of administrations in continuing to pursue multi-service satellite networks. Considering all of this, it is appropriate to suppress Recommendation **719**.

Proposal:

USA/ /1 **SUP**

Recommendation 719 (WARC-92)

Multi-service satellite networks using the geostationary-satellite orbit

Reasons: No longer needed.

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[7] **Doc. WAC/150(05.09.02)**