

ATTACHMENT 2
to FCC Public Notice DA 13-1937

**Inputs formulated and approved within the
National Telecommunications and Information Administration:**

Document WAC/043(19.09.13)

Ms. Mindel De La Torre
Chief of the International Bureau
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Ms. De La Torre:

The National Telecommunications and Information Administration (NTIA) on behalf of the Executive Branch agencies, approves the release of the attached Executive Branch preliminary view for WRC-15. The enclosed draft preliminary view addresses agenda item 1.1 (mobile broadband/IMT) in the 5350-5470 MHz range.

This draft preliminary view considers the federal agency inputs toward the development of U.S. proposals for WRC-15. NTIA forwards this package for your consideration and review by your WRC-15 Advisory Committee. Dr. Darlene Drazenovich is the primary contact from my staff.

Sincerely,

(Original Signed March 19, 2013)

Karl B. Nebbia
Associate Administrator
Office of Spectrum Management

Enclosure

UNITED STATES OF AMERICA
DRAFT PRELIMINARY VIEWS FOR WRC-15

Agenda Item 1.1: to consider additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT) and related regulatory provisions, to facilitate the development of terrestrial mobile broadband applications, in accordance with Resolution **233 (WRC-12)**

BACKGROUND: The World Radiocommunication Conference 2012 (WRC-12) adopted WRC-15 Agenda Item 1.1 in an effort to meet the dramatic increase in demand for mobile broadband applications. Radio Local Area Networks (RLANs) have become an important component of broadband connectivity for consumers and businesses. The volume of traffic over the RLAN networks is growing as it supports local area networks as well as data offloading for mobile networks. As devices such as tablets that connect to the internet solely through RLANs increase, data traffic over RLANs can be expected to grow.

The World Radiocommunication Conference-2003 (WRC-03) allocated the bands 5150-5350 MHz and 5470-5725 MHz on a primary basis to the mobile service for the implementation of wireless access systems including RLANs, subject to Resolution **229 (Rev. WRC-12)** (see No. **5.446A**). The WRC-03 action has enabled significant growth of RLANs. Resolution **229 (Rev. WRC-12)** establishes the regulatory, operational and technical provisions that are intended to enable some level of compatibility with the primary services in the subject bands. Resolution **229 (Rev. WRC-12)** also invites the ITU-R to continue studies on mitigation techniques to protect EESS from stations in the mobile service and studies on suitable test methods and procedures for the implementation of dynamic frequency selection; these studies have not been completed.

For over a decade RLANs have provided local area access to the Internet. Over that period, RLAN technology has evolved to provide higher data rates. However, wired and wireless broadband connections into the home or business also have increased data rates as fiber is now closer to the premise, 3G deployments are evolving (Long Term Evolution (LTE), WiMAX, etc.). Therefore, it is crucial for RLAN technology to continue to evolve to support these increased data rates.

The increasing traffic on RLAN networks, wider channel sizes to support higher data rates, and device-to-device connectivity have created a need for additional spectrum. The 5350-5470 MHz band is particularly attractive for RLANs for reasons that include:

- RLAN devices already operate in spectrum immediately adjacent to the 5350-5470 MHz band (i.e. 5150-5350 MHz and 5470-5725 MHz) subject to Resolution **229 (Rev WRC-12)**. Equipment cost and complexity for development of RLAN devices in 5350-5470 MHz may be less complicated than other bands not adjacent to the existing RLAN bands.
- A new international allocation to the mobile service for 5350-5470 MHz would facilitate contiguous spectrum for RLANs, which would increase the number of non-overlapping channels available for use. The contiguous spectrum would enable two additional 80 MHz channels as well as one additional 160 MHz channel. (Note: the increase in channels is greater than the corresponding increase in spectrum to provide a more efficient band plan.)

The 5350-5470 MHz band is allocated on a primary basis to the Earth exploration-satellite, space research, and radiolocation services. In addition, the 5350-5460 MHz band segment has the aeronautical radionavigation service on a primary basis and the 5460-5470 MHz band segment has the radionavigation service on a primary basis. Many of these services also operate within all or portions of 5470-5725 MHz, where dynamic frequency selection (DFS) has a requirement to protect some of these incumbent services. However, the systems and requirements for the primary services in these bands have evolved. Further, the applicability of Res 229, including whether DFS will be a viable option for mitigating risks to existing services, for the 5350-5470 MHz band needs to be examined.

The modeling considerations for the 5350-5470 MHz band will vary from previous studies completed in the ITU-R and the detailed analyses are expected to be more complex than those previously utilized to determine the sharing conditions under Resolution 229 (WRC-03) for the 5150-5250 MHz, 5250-5350 MHz, and 5470-5725 MHz bands. In order to consider a mobile allocation for RLAN under WRC-15 Agenda Item 1.1 in the 5350-5470 MHz band, JTG compatibility studies need to determine sharing feasibility and mitigation measures, including appropriate regulations, which may provide the possibility of allowing RLAN devices to operate in these bands while ensuring protection of the existing services in the band. The results of the compatibility studies could lead to modifications to the current technical and regulatory mechanisms in Resolution **229 (Rev. WRC-12)** and associated ITU-R recommendations, or new technical and regulatory mechanisms.

U.S. VIEW: If compatibility studies determine sharing feasibility and mitigation measures, including appropriate technical and regulatory mechanisms to protect existing in-band and adjacent band services, the United States supports a primary allocation to the mobile service for the implementation of wireless access systems including RLANs in the 5350-5470 MHz band.

Document WAC/044(19.09.13)

Ms. Mindel De La Torre
Chief of the International Bureau
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Ms. De La Torre:

The National Telecommunications and Information Administration (NTIA) on behalf of the Executive Branch agencies, approves the release of the draft Executive Branch proposal for WRC-15 agenda items 9.2. NTIA proposes to describe the term “different category of service” as a footnote to the title of Section II– Categories of Services and Allocations in Article 5. No other changes to the radio regulations would be required under agenda item 9.2 to address inconsistencies found in applying instances of “additional allocations” or “different category of service” footnotes.

NTIA considered the federal agencies’ input toward the development of U.S. proposals for WRC-15. NTIA forwards this package for your consideration and review by your WRC-15 Advisory Committee. Dr. Darlene Drazenovich is the primary contact from my staff.

Sincerely,

(Original Signed April 3, 2013)

Karl B. Nebbia
Associate Administrator
Office of Spectrum Management

UNITED STATES OF AMERICA
DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE

Agenda Item 9: *to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the Convention*

9.2 *on any difficulties or inconsistencies encountered in the application of the Radio Regulations*

Background Information: Agenda item 9.2 is a standing agenda item. The Director of the Radiocommunication Bureau (BR) submits a report to the World Radiocommunication Conference (WRC) outlining various difficulties or inconsistencies encountered in the application of the Radio Regulations (RR) since the previous conference under this agenda item. This agenda item invites Administrations to consider possible amendments to the RR to address these issues.

Based on a Member State's contribution to WRC-12, the Conference examined inconsistencies that exist with respect to the application of "*Additional allocation*" and "*Different category of service*" in Article 5. WRC-12 noted that numerous footnotes identified as "*Additional allocation*" do not conform to the application of Nos. 5.34 to 5.37, which is only to be applied in the case of an allocation for an area smaller than a Region, or in a particular country. The term "*Different category of service*" is applied in many footnotes without a corresponding description in Section II of Article 5.

Recognizing the complexity of these issues, WRC-12 concluded that Administrations should further examine these issues during this study cycle and requested the Director to report to WRC-15 on these issues.

There are well over 250 footnotes in Article 5, which contain additional allocations (188), alternative allocations (36), and different categories of service (42). At the last few WRCs, the Director could not specify any difficulties in applying footnote allocations containing these terms. Therefore, WRC-15 should not expend resources to examine each instance of their use. Instead, WRC-15 should clarify the appropriate use of the term, "different category of service" in section II of Article 5 of the Radio Regulations. WRC-15 and future WRCs should address any inconsistencies related to the use of these terms as a part of specific agenda items, as appropriate (e.g., country footnotes pursuant to Resolution 26 (Rev. WRC-07)).

Proposals:

ARTICLE 5

Frequency allocations

Section II – Categories of services and allocations

NOC **USA/9.2/1**

5.34 *Additional allocations*

Reasons: To facilitate the efficient work of WRC-15 and future WRCs, Conferences, on an ad hoc basis as a part of specific agenda items, as appropriate (e.g., country footnotes pursuant to Resolution 26 (Rev. WRC-07)), should address any inconsistencies related to “*additional allocation*” which may be identified by Working Parties or the Special Committee.

NOC **USA/9.2/2**

5.35 1) Where a band is indicated in a footnote of the Table as “also allocated” to a service in an area smaller than a Region, or in a particular country, this is an “additional” allocation, i.e. an allocation which is added in this area or in this country to the service or services which are indicated in the Table (see No. 5.36).

Reasons: To facilitate the efficient work of WRC-15 and future WRCs, Conferences, on an ad hoc basis as a part of specific agenda items, as appropriate (e.g., country footnotes pursuant to Resolution 26 (Rev. WRC-07)), should address any inconsistencies related to “*additional allocation*” which may be identified by Working Parties or the Special Committee.

NOC **USA/9.2/3**

5.36 2) If the footnote does not include any restriction on the service or services concerned apart from the restriction to operate only in a particular area or country, stations of this service or these services shall have equality of right to operate with stations of the other primary service or services indicated in the Table.

Reasons: To facilitate the efficient work of WRC-15 and future WRCs, Conferences, on an ad hoc basis as a part of specific agenda items, as appropriate (e.g., country footnotes pursuant to Resolution 26 (Rev. WRC-07)), should address any inconsistencies related to “*additional allocation*” which may be identified by Working Parties or the Special Committee.

NOC **USA/9.2/4**

5.37 3) If restrictions are imposed on an additional allocation in addition to the restriction to operate only in a particular area or country, this is indicated in the footnote of the Table.

Reasons: To facilitate the efficient work of WRC-15 and future WRCs, Conferences, on an ad hoc basis as a part of specific agenda items, as appropriate (e.g., country footnotes pursuant to Resolution 26 (Rev. WRC-07)), should address any inconsistencies related to “*additional allocation*” which may be identified by Working Parties or the Special Committee.

NOC **USA/9.2/5**

5.38 *Alternative allocations*

Reasons: To facilitate the efficient work of WRC-15 and future WRCs, Conferences, on an ad hoc basis as a part of specific agenda items, as appropriate (e.g., country footnotes pursuant to Resolution **26** (Rev. WRC-07)), should address any inconsistencies related to “*alternative allocation*” which may be identified by Working Parties or the Special Committee.

NOC **USA/9.2/6**

5.39 1) Where a band is indicated in a footnote of the Table as “allocated” to one or more services in an area smaller than a Region, or in a particular country, this is an “alternative” allocation, i.e. an allocation which replaces, in this area or in this country, the allocation indicated in the Table (see No. **5.40**).

Reasons: To facilitate the efficient work of WRC-15 and future WRCs, Conferences, on an ad hoc basis as a part of specific agenda items, as appropriate (e.g., country footnotes pursuant to Resolution **26** (Rev. WRC-07)), should address any inconsistencies related to “*alternative allocation*” which may be identified by Working Parties or the Special Committee.

NOC **USA/9.2/7**

5.40 2) If the footnote does not include any restriction on stations of the service or services concerned, apart from the restriction to operate only in a particular area or country, these stations of such a service or services shall have an equality of right to operate with stations of the primary service or services, indicated in the Table, to which the band is allocated in other areas or countries.

Reasons: To facilitate the efficient work of WRC-15 and future WRCs, Conferences, on an ad hoc basis as a part of specific agenda items, as appropriate (e.g., country footnotes pursuant to Resolution **26** (Rev. WRC-07)), should address any inconsistencies related to “*alternative allocation*” which may be identified by Working Parties or the Special Committee.

NOC **USA/9.2/8**

5.41 3) If restrictions are imposed on stations of a service to which an alternative allocation is made, in addition to the restriction to operate only in a particular country or area, this is indicated in the footnote.

Reasons: To facilitate the efficient work of WRC-15 and future WRCs, Conferences, on an ad hoc basis as a part of specific agenda items, as appropriate (e.g., country footnotes pursuant to Resolution **26** (Rev. WRC-07)), should address any inconsistencies related to “*alternative allocation*” which may be identified by Working Parties or the Special Committee.

MOD USA/9.2/9

ARTICLE 5

Frequency allocations

Section II – Categories of services and allocations¹

ADD USA/9.2/10

¹ When the term “*different category of service*” is used in a footnote to the Table of Allocations in this Article, it represents a footnote allocation that is different from the service allocation(s) as specified in the Table (e.g., primary rather than secondary, or secondary rather than primary).

Reasons: The meaning of the term “*Different category of service*” in footnotes of Article 5 is obvious within the context of the footnotes; however, to clarify its application, WRC-15 should amend the title of Section II.

Document WAC/045(19.09.13)

Ms. Mindel De La Torre
Chief of the International Bureau
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Ms. De La Torre:

The National Telecommunications and Information Administration (NTIA) on behalf of the Executive Branch agencies, approves the release of the attached Executive Branch preliminary view for WRC-15. The enclosed draft preliminary view addresses agenda item 9.1.1 for the protection of systems operating in the mobile-satellite service in the band 406-406.1 MHz.

This draft preliminary view considers the federal agency inputs toward the development of U.S. proposals for WRC-15. NTIA forwards this package for your consideration and review by your WRC-15 Advisory Committee. Dr. Darlene Drazenovich is the primary contact from my staff.

Sincerely,

(Original Signed August 13, 2013)

Karl B. Nebbia
Associate Administrator
Office of Spectrum Management

Enclosure

UNITED STATES OF AMERICA

DRAFT PRELIMINARY VIEWS FOR WRC-15

Agenda Item 9.1.1 - Resolution 205 (Rev.WRC-12): *to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the Convention, on the activities of the Radiocommunication Sector since WRC-12 on the protection of systems operating in the mobile-satellite service in the band 406-406.1 MHz*

Background Information: Resolution 205 invites the ITU-R to conduct, and complete in time for WRC-15, the appropriate regulatory, technical and operational studies with a view to ensuring the adequate protection of mobile-satellite service systems in the frequency band 406-406.1 MHz from any emissions that could cause harmful interference (see No. 5.267), taking into account the current and future deployment of services in adjacent bands. This Resolution also instructs the Director of the Radiocommunication Bureau to include the results of these studies in his Report to WRC-15.

In the band 406-406.1 MHz, Search and Rescue beacons transmit uplink signals to search and rescue satellite systems such as the Cospas-Sarsat system. Forty-one nations participate in the Cospas-Sarsat program. The objective of the Cospas-Sarsat system is to reduce, as far as possible, delays in the provision of distress alerts to search and rescue services, and the time required for locating and providing assistance to people in distress. Location and response time have a direct impact on the probability of survival of the person in distress at sea or on land.

Search and rescue satellites in low-earth and geostationary orbits carry receivers which detect emergency beacons operating in the band 406-406.1 MHz. The satellites relay distress signals from emergency beacons, activated by users in distress (aviators, mariners, land-based), to a network of ground stations and ultimately to a mission control center (MCC). The MCC processes the distress signal and alerts the appropriate search and rescue authorities to who is in distress and where they are located.

U.S. VIEW: The United States supports the ongoing ITU-R studies with a view of having an adequate protection of the MSS band 406-406.1 MHz in order to detect and successfully process 406 MHz distress signals.

Document WAC/047(19.09.13)

Ms. Mindel De La Torre
Chief of the International Bureau
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Ms. De La Torre:

The National Telecommunications and Information Administration (NTIA) on behalf of the Executive Branch agencies, approves the release of the draft Executive Branch proposal for WRC-15 agenda item 1.11. NTIA proposes to modify the Radio Regulations to provide an EESS allocation in the frequency range from 7190 – 7250 MHz.

NTIA considered the federal agencies' input toward the development of U.S. proposals for WRC-15. NTIA forwards this package for your consideration and review by your WRC-15 Advisory Committee. Dr. Darlene Drazenovich is the primary contact from my staff.

Sincerely,

Karl B. Nebbia
Associate Administrator
Office of Spectrum Management

UNITED STATES OF AMERICA

DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE

Agenda Item 1.11: *to consider a primary allocation for the Earth exploration-satellite service (Earth-to-space) in the 7-8 GHz range, in accordance with Resolution 650 (WRC-12)*

Background Information: Many future Earth exploration-satellite service (EESS) missions will require large uplink bandwidth to accommodate the increasing amount of data needed for spacecraft operation plans and dynamic spacecraft software modifications. The only EESS (Earth-to-space) allocation that is currently available in Article 5 for telecommanding is 2 025-2 110 MHz. This 2 025-2 110 MHz band is of fundamental importance and cannot accommodate the bandwidth that is globally required in the future on the Earth-to-space link for these telecommanding functions. There are already as many as 1135 satellite networks filed with the ITU in this band and the ITU expects many new satellite networks to enter into this band, including many nanosatellites and picosatellites. Therefore it would be extremely difficult, if not impossible, to coordinate satellites with large bandwidth requirements within the band 2 025-2 110 MHz and another band is required.

An EESS (Earth-to-space) allocation in the 7-8 GHz range would help alleviate the problems posed by this new type of EESS mission. The telemetry, telecommand and control function could be implemented by pairing this new allocation with the already existing EESS (space-to-Earth) allocation in the band 8 025-8 400 MHz. This may also eventually lead to a simplified on-board architecture and operational concept for some future EESS missions.

ITU-R WP 7B has determined an approximate spectrum requirement of 56 MHz for EESS (Earth-to-space). The frequency range 7 145-7 250 MHz is currently allocated to the fixed, mobile and, space research (Earth-to-space) services on a primary basis, the band 7 145-7 235 MHz is subject to the conditions on the use of the space research service (SRS) in No. 5.460.

The ITU-R has developed various sharing and compatibility studies between transmitting EESS earth stations and stations of the space research, fixed, mobile and space operations services within the 7 145-7 250 MHz range. These studies show that co-existence of EESS and SRS (deep space) uplinks would not be practical within the same frequency band. Sharing in the 7 145-7 190 MHz band segment, where the use of the space research service is restricted by No. 5.460 to deep space, is not feasible. The studies show that sharing would be feasible with existing services in the 7 190-7 250 MHz band segment.

Proposal:

ARTICLE 5

Frequency allocations

Section IV – Table of Frequency Allocations
(See No. 2.1)

MOD USA/AI 1.11/1

7 145-7 235250 MHz		
Allocation to services		
Region 1	Region 2	Region 3
7 145-7 235 7 190	FIXED MOBILE SPACE RESEARCH (<u>deep space</u>) (Earth-to-space) 5.460 5.458 5.459	
7 190-7 235	FIXED MOBILE SPACE RESEARCH (Earth-to-space) 5.460 EARTH EXPLORATION-SATELLITE (Earth-to-space) 5.458 5.459 MOD 5.460	
7 235-7 250	FIXED MOBILE EARTH EXPLORATION-SATELLITE (Earth-to-space) MOD 5.460 5.458 5.459	

Reasons: Studies have shown that sharing between the EESS (Earth-to-space) and other services in the 7 190-7 250 MHz band is feasible. Also splitting the Table of Allocations at 7 190 MHz clarifies the allocation of services within the Table.

MOD USA/AI 1.11/2

5.460 ——— The use of the band 7 145-7 190 MHz by the space research service (~~Earth-to-space~~) is restricted to deep space; no No emissions to deep space shall be effected in the band 7 190-7 235 MHz. Geostationary satellites in the space research service operating in the band 7 190-7 235 MHz and geostationary satellites in the Earth exploration-satellite service in the band 7 190-7 250 MHz, shall not claim protection from existing and future stations of the fixed and mobile services and No. **5.43A** does not apply. (WRC-0315)

Reasons: Consequential change to the splitting of the Table of Allocations at 7 190 MHz.

Methods for the determination of the coordination area around an earth station in frequency bands between 100 MHz and 105 GHz

TABLE 7b (Rev.WRC-1512)

Parameters required for the determination of coordination distance for a transmitting earth station

Transmitting space radio-communication service designation		Fixed-satellite, mobile-satellite	Aero-nautical mobile-satellite (R) service	Aero-nautical mobile-satellite (R) service	Fixed-satellite	Fixed-satellite	Fixed-satellite	Fixed-satellite	Earth exploration-satellite, Space operation, space research	Fixed-satellite, mobile-satellite, meteorological-satellite	Fixed-satellite	Fixed-satellite	Fixed-satellite	Fixed-satellite ³	Fixed-satellite	Fixed-satellite ³						
Frequency bands (GHz)		2.655-2.690	5.030-5.091	5.030-5.091	5.091-5.150	5.091-5.150	5.725-5.850	5.725-7.075	7.100-7.250 ⁵	7.900-8.400	10.7-11.7	12.5-14.8	13.75-14.3	15.43-15.65	17.7-18.4	19.3-19.7						
Receiving terrestrial service designations		Fixed, mobile	Aeronautical radio-navigation	Aeronautical mobile (R)	Aeronautical radio-navigation	Aeronautical mobile (R)	Radiolocation	Fixed, mobile	Fixed, mobile	Fixed, mobile	Fixed, mobile	Fixed, mobile	Radiolocation radionavigation (land only)	Aeronautical radionavigation	Fixed, mobile	Fixed, mobile						
Method to be used		§ 2.1	§ 2.1, § 2.2	§ 2.1, § 2.2			§ 2.1	§ 2.1	§ 2.1, § 2.2	§ 2.1	§ 2.1	§ 2.1, § 2.2	§ 2.1		§ 2.1, § 2.2	§ 2.2						
Modulation at terrestrial station ¹		A					A	N	A	N	A	N	A	N	-	N	N					
Terrestrial station interference parameters and criteria	p_O (%)	0.01					0.01	0.005	0.01	0.005	0.01	0.005	0.01	0.005	0.01		0.005	0.005				
	n	2					2	2	2	2	2	2	2	2	1		2	2				
	p (%)	0.005					0.005	0.0025	0.005	0.0025	0.005	0.0025	0.005	0.0025	0.01		0.0025	0.0025				
	N_L (dB)	0					0	0	0	0	0	0	0	0	0		0	0				
	M_S (dB)	26 ²					33	37	33	37	33	37	33	40	33	40	1	25	25			
W (dB)	0					0	0	0	0	0	0	0	0	0	0		0	0				
Terrestrial station parameters	G_X (dBi) ⁴	49 ²	6	10	6	6	46	46	46 ⁶	46 ⁶	46	46	50	50	52	52	36	48	48			
	T_e (K)	500 ²					750	750	750	750	750	750	1 500	1 100	1 500	1 100	2 636		1 100	1 100		
Reference bandwidth	B (Hz)	4×10^3	150×10^3	37.5×10^3	150×10^3	10^6	4×10^3	10^6	4×10^3	10^6	4×10^3	10^6	4×10^3	10^6	4×10^3	10^6	10^7		10^6	10^6		
Permissible interference power	$P_f(p)$ (dBW) in B	-140	-160	-157	-160	-143			-131	-103	-131	-103	-131	-103	-128	-98	-128	-98	-131		-113	-113

¹ A: analogue modulation; N: digital modulation.

² The parameters for the terrestrial station associated with transhorizon systems have been used. Line-of-sight radio-relay parameters associated with the frequency band 5 725-7 075 MHz may also be used to determine a supplementary contour with the exception that $G_X = 37$ dBi.

3 Feeder links of non-geostationary-satellite systems in the mobile-satellite service.

4 Feeder losses are not included.

5 Actual frequency bands are 7 190-7 250 MHz for Earth exploration satellite service, 7 100-7 155 MHz and 7 190-7 235 MHz for space operation service and 7 145-7 235 MHz for the space research service.

6 G_x (dBi)= 56.5 for Earth exploration satellite service.

Reasons: Consequential change of adding a primary EESS (Earth-to-space) allocation to the band 7 190-7 250 MHz.

ARTICLE 21

Terrestrial and space services sharing frequency bands above 1 GHz

MOD USA/AI 1.11/4

Section II – Power limits for terrestrial stations

TABLE- 21-2 (Rev.WRC-12/15)

Frequency band	Service	Limit as specified in Nos.
1 427-1 429 MHz	Fixed-satellite	21.2, 21.3, 21.4 and 21.5
1 610-1 645.5 MHz (No. 5.359)	Meteorological-satellite	
1 646.5-1 660 MHz (No. 5.359)	Space research	
1 980-2 010 MHz	Space operation	
2 010-2 025 MHz (Region 2)	Earth exploration-satellite	
2 025-2 110 MHz	Mobile-satellite	
2 200-2 290 MHz		
2 655-2 670 MHz ⁵ (Regions 2 and 3)		
2 670-2 690 MHz ⁵ (Regions 2 and 3)		
5 670-5 725 MHz (Nos. 5.453 and 5.455)		
5 725-5 755 MHz ⁵ (Region 1 countries listed in Nos. 5.453 and 5.455)		
5 755-5 850 MHz ⁵ (Region 1 countries listed in Nos. 5.453 , 5.455 and 5.456)		
5 850-7 075 MHz		
7 145-7 235 250 MHz*		
7 900-8 400 MHz		

* For this frequency band only the limits of Nos. 21.3 and 21.5 apply.

** *Note by the Secretariat:* This Resolution was revised by WRC-07 and WRC-12.

Reasons: Consequential change of adding a primary EESS (Earth-to-space) allocation to the band 7 190-7 250 MHz.

MOD USA/AI 1.11/5

Section III – Power limits for earth stations

TABLE 21-3 (Rev.WRC-12/15)

Frequency band	Services
2 025-2 110 MHz	Fixed-satellite
5 670-5 725 MHz (for the countries listed in No. 5.454 with respect to the countries listed in Nos. 5.453 and 5.455)	Earth-exploration-satellite
	Meteorological-satellite
	Mobile-satellite
5 725-5 755 MHz ⁶ (for Region 1 with respect to the countries listed in Nos. 5.453 and 5.455)	Space operation
5 755-5 850 MHz ⁶ (for Region 1 with respect to the countries listed in Nos. 5.453 , 5.455 and 5.456)	Space research
5 850-7 075 MHz	
7 190-7 235 250 MHz	

7 900-8 400 MHz	
10.7-11.7 GHz ⁶	(for Region 1)
12.5-12.75 GHz ⁶	(for Region 1 with respect to the countries listed in No. 5.494)
12.7-12.75 GHz ⁶	(for Region 2)
12.75-13.25 GHz	
14.0-14.25 GHz	(with respect to the countries listed in No. 5.505)
14.25-14.3 GHz	(with respect to the countries listed in Nos. 5.505 , 5.508 and 5.509)
14.3-14.4 GHz ⁶	(for Regions 1 and 3)
14.4-14.8 GHz	

Reasons: Consequential change of adding a primary EESS (Earth-to-space) allocation to the band 7 190-7 250 MHz.

SUP USA/AI 1.11/6

RESOLUTION 650 (WRC-12)

Allocation for the Earth exploration-satellite service (Earth-to-space) in the 7-8 GHz range

Reasons: ITU-R Working Party 7B completed required studies and this resolution is no longer needed.

Document WAC/048(19.09.13)

Ms. Mindel De La Torre
Chief of the International Bureau
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Ms. De La Torre:

The National Telecommunications and Information Administration (NTIA) on behalf of the Executive Branch agencies, approves the release of the draft Executive Branch proposal for WRC-15 agenda item 1.1. NTIA proposes no change to the band 420-450 MHz.

NTIA considered the federal agencies' input toward the development of U.S. proposals for WRC-15. NTIA forwards this package for your consideration and review by your WRC-15 Advisory Committee. Dr. Darlene Drazenovich is the primary contact from my staff.

Sincerely,

(Original Signed September 6, 2013)

Karl B. Nebbia
Associate Administrator
Office of Spectrum Management

UNITED STATES OF AMERICA
DRAFT PROPOSAL FOR THE WORK OF THE CONFERENCE

Agenda Item 1.1: *to consider additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT) and related regulatory provisions, to facilitate the development of terrestrial mobile broadband applications, in accordance with Resolution 233 (WRC-12)*

Background Information: WRC-15 will consider additional allocations to the mobile service on a primary basis and identification of additional frequency bands for IMT based on the results of ITU-R sharing and compatibility studies.

Article 5 allocates the 410-430 MHz band to the mobile (except aeronautical mobile) service on a primary basis, but does not designate the band for IMT. Administrations introduced proposals in CITEL supporting identification of the 410-430 MHz frequency band for IMT, but submitted no ITU-R studies to show compatibility between IMT and incumbent services.

No. 5.269 allocates the 420-430 MHz and 440-450 MHz bands to the radiolocation service on a primary basis in specified countries. Article 5 allocates the 430-440 MHz band to the radiolocation service on a primary basis worldwide. Some countries use the 420-450 MHz band for high-powered radars that detect and track earth-orbiting satellites and space debris. These radars also aid in identifying potential space debris hazards that could damage the International Space Station.

There are no ITU-R studies showing compatibility between IMT systems and existing services in the 420-450 MHz band. Therefore, this proposal advocates no change to Article 5 Table of Frequency Allocations for the band 420-450 MHz.

Proposal:

ARTICLE 5
Frequency allocations
Section IV – Table of Frequency Allocations
(See No. 2.1)

NOC **USA/1.1/1**

410-460 MHz

Allocation to services		
Region 1	Region 2	Region 3
...		
420-430	FIXED MOBILE except aeronautical mobile Radiolocation 5.269 5.270 5.271	
430-432 AMATEUR RADIOLOCATION 5.271 5.272 5.273 5.274 5.275 5.276 5.277	430-432 RADIOLOCATION Amateur 5.271 5.276 5.278 5.279	

432-438 AMATEUR RADIOLOCATION Earth exploration-satellite (active) 5.279A 5.138 5.271 5.272 5.276 5.277 5.280 5.281 5.282	432-438 RADIOLOCATION Amateur Earth exploration-satellite (active) 5.279A 5.271 5.276 5.278 5.279 5.281 5.282
438-440 AMATEUR RADIOLOCATION 5.271 5.273 5.274 5.275 5.276 5.277 5.283	438-440 RADIOLOCATION Amateur 5.271 5.276 5.278 5.279
440-450	FIXED MOBILE except aeronautical mobile Radiolocation 5.269 5.270 5.271 5.284 5.285 5.286

Reasons: Any modifications to the 420-450 MHz band may place additional constraints on the allocated radiolocation service in specified countries on a primary basis in the bands 420-430 and 440-450 MHz.
