ATTACHMENT 2
to FCC Public Notice DA 13-330

Draft Proposals formulated and approved within the National Telecommunications and Information Administration:

Document WAC/029(07.03.13)

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 1.4 (secondary amateur HF allocation) in the 5250-5450 kHz 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 October 4, 2012)*

Karl B. Nebbia
Associate Administrator
Office of Spectrum Management

Enclosure

UNITED STATES OF AMERICA

DRAFT PRELIMINARY VIEWS FOR WRC-15

Agenda Item 1.4: to consider possible new allocation to the amateur service on a secondary basis within the band 5 250-5 450 kHz in accordance with Resolution **649 (WRC-12)**

BACKGROUND: Incumbent services in the 5 250-5 450 kHz range include the fixed, mobile (except aeronautical mobile), and radiolocation[1] services. Experience has shown that amateur service operation is incompatible with HF radiolocation; thus, the 5 250-5 275 kHz range is not suitable to satisfy this agenda item. Some administrations, including the United States, have permitted amateur service licensees privileges within the 5 275-5 450 kHz range under Radio Regulations No. 4.4, in some cases permitting operation on discrete channels, and in other cases permitting access to a frequency band. These amateur operations are typically limited to lower power levels (i.e., 100 watts effective isotropic radiated power). In some cases, these amateur operations are restricted to specific emission designators (i.e., 2K80J3E, 2K80J2D, 60HOJ2B and 150HA1A).

U.S. VIEW: If ITU-R studies demonstrate compatibility with incumbent services, the United States will consider supporting a secondary allocation of up to 15 kHz to the amateur service within the 5 275-5 450 kHz range. Contiguous spectrum is not a requirement for amateur operations in the band. Sharing studies should consider non-contiguous, discreet allocations as well as listen-before-transmit protocols to provide additional protection for the primary services.

[1] The allocation to the radiolocation service is in the band 5 250-5 275 kHz and comes into force on 1 January 2013.

Document WAC/030(07.03.13)

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 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)** for the band 1695-1710 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 January 30, 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: Third- and fourth-generation advanced wireless systems provide terrestrial and satellite-based broadband and multi-media capabilities, and represent a path for expanding broadband capabilities and coverage areas. It is important for administrations to identify spectrum that could be made available for terrestrial mobile broadband as administrations plan their spectrum use and as industry plans to meet the marketplace requirements of the future. The early identification of spectrum is critical to the timely introduction of new broadband services due to the time required to complete the reallocation process, which could include developing service rules or sharing methods, conducting auctions, relocating incumbent users to comparable spectrum as necessary, and the redesign of incumbent systems to accommodate new operations.

The United States considered the entire band 1 675-1 710 MHz as a candidate for terrestrial mobile broadband. The band 1 675-1 710 MHz includes co-primary allocations to the meteorological aids service, the meteorological-satellite service (space-to-Earth), and an additional co-primary allocation to the mobile service in the frequency range 1 675-1 690 MHz. The United States and other countries operate meteorological aids in the frequency range
1 675-1 683 MHz. Meteorological aids provide data critical to the accuracy of global weather prediction models and calibration of meteorological satellite sensor data. There is no suitable alternative for the in-situ measurements provided by meteorological aids and loss of data would have a significant negative impact on global weather prediction. Application of exclusion zones or other sharing mechanisms is impractical due to the large number of fixed and transportable meteorological aids stations releasing transmitters that drift up to 250 km while in flight.

Emergency managers and the public currently rely on information that National Oceanographic and Atmospheric Administration (NOAA) satellites broadcast in the 1 690-1 695 MHz range. This information includes severe weather warnings and forecasts via the Emergency Manager's Weather Information Network and re-broadcast data from ground-based sensors, such as flood gauges. NOAA's satellite command and control communications reside in the frequency range of 1 690-1 695 MHz. It is difficult to provide alternative communications to users who do not have reliable Internet access or who are in areas where a weather event has degraded or destroyed power or communications infrastructure. Without the data provided by meteorological satellite transmissions, emergency managers and other users would have to receive broadcasts through another transmission means, such as commercial satellite broadcasts with an equivalent amount of reliability and availability present in current direct broadcast transmissions. The studies concluded that mobile broadband systems are incompatible with existing meteorological systems in the range of 1 675-1 695 MHz.

The United States determined that the range 1 695-1 710 MHz offers opportunity for mobile broadband while minimizing disruption of meteorological operations upon which the domestic and international public safety and weather prediction communities depend. Initial studies concluded that the use of some geographical limitations on terrestrial mobile broadband could protect the limited number of critical meteorological earth stations within 1 695-1 710 MHz.

U.S. VIEW: The United States supports studies to develop technical requirements that would allow a primary mobile allocation, and identification for broadband wireless systems including IMT, in the band 1 695-1 710 MHz. These studies should identify sharing arrangements to ensure protection of existing services, namely meteorological-satellite earth stations.

Document WAC/032(07.03.13)

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 proposals for WRC-15 agenda items 7 (No. 11.49) and 1.13. For agenda item 7, NTIA proposes to add regulatory procedures when administrations notify the Bureau of suspension beyond the initial six-month period. For agenda item 1.13, NTIA proposes to modify No. 5.268 by removing both the 5 km distance limitation and the restriction to EVA operation.

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 February 14, 2013)

Karl B. Nebbia
Associate Administrator
Office of Spectrum Management

UNITED STATES OF AMERICA

DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE

Agenda Item 7: *to consider possible changes, and other options, in response to Resolution 86 (rev. Marrakesh, 2002) of the Plenipotentiary Conference, an advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks, in accordance with Resolution **86 (Rev. WRC-07)** to facilitate rational efficient, and economical use of radio frequencies and any associated orbits, including the geostationary –satellite orbit*

Background Information: WRC-12 modified No. **11.49** to expand the time an administration is allowed to suspend the assignment to a space station from a two-year time period to three years. In addition, the administration does not need to notify the Bureau of the suspension during the first six months of the date the assignment was suspended as long as the assignment is brought back into use before the end of the six-month period. However, if the suspension lasts longer than six months, the administration must notify the Bureau of the suspension and then follow the procedures for bringing the assignment back into use within the three-year suspension period. Because of time constraints at WRC-12, the conference did not include regulatory procedures for the mechanics of when an administration notifies the Bureau of a suspension extending beyond the initial six-month period. Because of this omission, the Bureau proposed a Rule of Procedure (RoP) that would have cancelled the assignment if the Bureau did not receive a notification of the suspension before or at the end of the six-month period. On the other hand, the Bureau cancelling a frequency assignment due to late notification beyond six months may be inconsistent with the WRC-12 decision for administrations to have a maximum of three years from the suspension date to resume use of their frequency assignments. As a result, the Radio Regulations Board did not include cancellation of an assignment for a late suspended use notification in the adopted Rules of Procedure.

This proposal supports administrations notifying the Bureau if a suspension is greater than six months but provides an incentive to administrations to notify the Bureau as soon as it can before the six-month period to avoid any possible reduction in the three-year suspension time. If an administration notifies the Bureau of a suspension beyond the initial six-month period, then the Bureau will reduce the amount of time over the six-month period from the three-year period. As an example, notifying the Bureau of a suspension at the seven-month point (notification date of suspension) will reduce the suspension period from the date the assignment was suspended (assignment suspension date) to 2 years and ten months (three years minus a penalty of two times one month for the one month late notification). As a result, an administration will only have a maximum of 2 years and four months to bring the assignment back into use from the notification date of suspension.

Proposal:

MOD USA/AI 7/1

11.49 Wherever the use of a recorded frequency assignment to a space station is suspended for a period exceeding six months, the notifying administration shall, as soon as possible, ~~but~~ preferably not later than six months from the date on which the use was suspended, inform the Bureau of the date on which such use was suspended. When the recorded assignment is brought back into use, the notifying administration shall, subject to the provisions of No. **11.49.1** when applicable, so inform the Bureau, as soon as possible. The date on which the recorded assignment is brought back into use[22] shall be not later than three years from the date on which the use of the assignment was suspended. If the notifying administration informs the Bureau of the suspension more than six months after the date on which the use of the assignment was suspended, this three-year time period shall be reduced by double the time period beyond six months the notifying administration informed the Bureau ~~from the date~~ of the suspension. (WRC-~~12~~15)

Reasons: To add regulatory procedures when an administration notifies the Bureau of a suspension beyond the initial six-month period.

UNITED STATES OF AMERICA

DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE

Agenda Item 1.13: *to review No. **5.268** with a view to examining the possibility for increasing the 5 km distance limitation and allowing space research service (space-to-space) use for proximity operations by space vehicles communicating with an orbiting manned space vehicle, in accordance with Resolution **652 (WRC 12)***

Background Information: WARC-92 allocated the band 410-420 MHz to the space research service (SRS) on a secondary basis for extra-vehicular activity (EVA) communications in the immediate vicinity of low earth orbit (LEO) manned space vehicles, and limited the use of the band by the SRS to EVA operation within 5 kilometers (km) of orbiting manned space vehicles. WRC-97 upgraded the allocation to the SRS in the band 410-420 MHz to primary status and No. **5.268** specified a set of power flux-density (pfd) limits to ensure protection of the fixed and mobile services while retaining the 5 km distance limitation for EVA operation.

Resolution **652 (WRC-12)**, recognizing c, states that "power flux-density (pfd) limits contained in No. **5.268** ensure the protection of terrestrial stations operating in the fixed and mobile services independent of the distance from, or the source of, space-to-space communications in the SRS." Also, long-term space exploration objectives require new activities around a manned space station other than EVA, such as visiting vehicles for crew transportation/cargo re-supply and free-fly proximity vehicles for inspection and maintenance. These vehicles need to initiate communication over distances greater than 5 km to ensure proper vehicle positioning, data exchange and system monitoring. ITU-R sharing studies within Working Party 7B demonstrate that communication links for a variety of space vehicles other than EVA can meet the pfd limits in No. **5.268** for distances beyond 5 km by using different modulation, spreading technologies, and power control schemes (7B/88 Annex 1, Preliminary Draft New Report ITU-R SA.[Proximity operations] - "Sharing conditions between space research service proximity operations links and fixed and mobile service links in the 410-420 MHz band).

Therefore, it is necessary to modify No. **5.268** to remove both the 5 km distance limitation and restriction to EVA operation while maintaining the pfd limits. Removal of these two restrictions will allow for greater flexibility in using the band 410-420 MHz for space research activities while maintaining protection of the terrestrial services.

Proposal:

MOD USA/AI 1.13/1

5.268 Use of the band 410-420 MHz by the space research service is limited to space-to-space communications with ~~within 5 km of~~ an orbiting, manned space vehicle. The power flux-density at the surface of the Earth produced by emissions from stations of ~~extra-vehicular activities~~ the space research service (space-to-space) in the band 410-420 MHz shall not exceed -153 dB(W/m^2) for $0° \le \delta \le 5°$, $-153 + 0.077\ (\delta - 5)$ dB(W/m^2) for $5° \le \delta \le 70°$ and –

148 dB(W/m^2) for 70° ≤ δ ≤ 90°, where δ is the angle of arrival of the radio-frequency wave and the reference bandwidth is 4 kHz. ~~No. **4.10** does not apply to extra-vehicular activities.~~ In this frequency band the space research (space-to-space) service shall not claim protection from, nor constrain the use and development of, stations of the fixed and mobile services. No. 4.10 does not apply. (WRC-~~97~~15)

Reasons: Modify No. **5.268** to remove both the 5 km distance limitation and restriction to EVA operation while maintaining the pfd limits to protect the terrestrial services.

SUP USA/AI 1.13/2

RESOLUTION 652 (WRC-12)

Use of the band 410-420 MHz by the space research service (space-to-space)

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

Document WAC/033(07.03.13)

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 preliminary view for WRC-15 agenda item 9.1.8 (nanosateliltes/picosatellites).

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 February 15, 2013)*

Karl B. Nebbia
Associate Administrator
Office of Spectrum Management

UNITED STATES OF AMERICA

DRAFT PRELIMINARY VIEWS FOR WRC-15

Agenda Item 9: to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the Convention:
9.1: on the activities of the Radiocommunication Sector since WRC-12
Section 9.1.8 of the CPM Report: Resolution **757 (WRC-12)** Regulatory aspects for nanosatellites and picosatellites

BACKGROUND: WRC-12 adopted Resolution **757 (WRC-12)** which resolves to invite WRC-18 to consider whether modifications to the regulatory procedures for notifying satellite networks are needed to facilitate the deployment and operation of nanosatellites and picosatellites, and to take appropriate actions. The regulatory procedures for notifying satellite networks apply to all satellite networks and systems in order to avoid causing or receiving harmful interference.

ITU-R Working Party 7B, in response to Question ITU-R 254/7, is developing a Draft New Report on technical and operational characteristics of nanosatellites and picosatellites. Currently, Resolution **757 (WRC-12)** provides the only direct recognition of nanosatellites and picosatellites in the Radio Regulations. Consistent with Resolution **757 (WRC-12)**, the ITU-R is to examine the procedures for notifying space networks and consider possible modifications to enable the deployment and operation of nanosatellites and picosatellites, taking into account the short development time, short mission time, and unique orbital characteristics. The Resolution also instructs the Director of the Radiocommunication Bureau to report to WRC-15 on the results of these studies.

U.S. VIEW: The United States supports completing the studies to characterize nanosatellites and picosatellites and examining the notification procedures for space networks with respect to the deployment and operation of these satellites. Based on the results of the studies, WRC-15 should if appropriate, modify the related WRC-18 agenda item.