

Status of Regional Proposals and Positions for WRC-19

Abstract

The following text provides the current status of APT, ASMG, ATU, CEPT, CITEL, and RCC proposals and/or positions WRC-19 as shown against the SFCG WRC-19 objectives as contained in Resolution SFCG 36-1R1. These are summaries only and are intended solely for the information and the use by SFCG member agencies.

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Agenda Item 1.2 Power Limits for MSS/MetSat/EESS Earth Stations Around 400 MHz

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<p>SFCG</p>	<p>SFCG supports establishment of appropriate in band e.i.r.p limits for earth stations operating in mobile-satellite service (399.9-400.05 MHz), the meteorological-satellite service (401-403 MHz) and the Earth exploration-satellite service (401-403 MHz), in order to preserve, on a long term basis, the operation of Data Collection Systems of both NGSO and GSO systems. SFCG does not support the use of e.i.r.p. density limits as a mechanism for ensuring compatibility. In addition, for both frequency bands, SFCG supports not applying the corresponding limit to satellite systems, for which complete notification information has been received by the Radiocommunication Bureau by 22 November 2019.</p>
<p>APT (2019-01-12)</p>	<p>Preliminary Position</p> <p>APT members support the ITU-R studies in accordance with Resolution 765 (WRC-15) to conduct and complete, in time for WRC-19, the necessary technical, operational and regulatory studies on establishing in-band power limits for earth stations required to protect satellite system with lower or moderate power (e.g. DCS) from harmful interference from telecommand-link earth stations operating in the EESS and MetSat in the frequency band 401-403 MHz and the MSS in the frequency band 399.9-400.05 MHz.</p> <p>4.1 For the band 399.9-400.05 MHz</p> <p>APT members do not support Method A in the Draft CPM Report for this Agenda Item and support the e.i.r.p. limit indicated in Table 4/1.2/3-1 of the Draft CPM Report. APT members are of the view that transitional arrangements are needed to ensure that the existing telecommands for EESS systems, including those systems to be notified before a certain date (e.g. November 22, 2019), may continue to operate [until TBD]</p> <p>4.2 For the band 401-403 MHz</p> <p>APT members support Method E in the Draft CPM Report for this Agenda Item. APT members are of the view that transitional arrangements are needed to ensure that the existing telecommands for EESS, including those systems to be notified before a certain date (e.g. November 22, 2019), may continue to operate until January 1, 2029.</p>
<p>ASMG (2018-07-23)</p>	<p>Preliminary Position</p> <p>Follow up the ongoing studies in the ITU-R.</p> <p>Supporting the ongoing studies in order to establish in-band power limits for earth stations operating in Mobile satellite service (MSS), Meteorological satellite service (MetSat) and Earth exploration service in the frequency bands 401-403MHz and 399.9-400.05MHz, in order to ensure the protection of the existing services without imposing any additional constraints in these services due to the massive usage of the fixed and mobile services in these frequency bands in the countries.</p>
<p>ATU (2018-09-17)</p>	<p>Preliminary Position</p> <p>APM19-3 agreed to:</p> <p>(a) For the band 399.9 – 400.05 MHz:</p>

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	<ul style="list-style-type: none"> • Note that ECOWAS and EACO positions is Method A (no Change) • Note that Egypt position is to support Method B • Note that SADC was still considering the issue and therefore did not have a common position. <p>(b) For the band 401-403MHz:</p> <ul style="list-style-type: none"> • Note that ECOWAS and Egypt positions is to support Method E. • Note that EACO position is to support No Change • Note that SADC was still considering the issue.
<p>CEPT (2018-11-30)</p>	<p>Preliminary Position</p> <p>In order to ensure long term continuity for the operation of satellite data collection systems, CEPT supports the establishment of in-band power/e.i.r.p limits, as appropriate, for earth stations in the EESS and MetSat in the frequency band 401-403 MHz and the MSS in the frequency band 399.9-400.05 MHz, taking into account the result of studies. In addition, CEPT proposes specific provisions for both frequency bands until 22 November 2024 for existing and planned satellite systems exceeding these e.i.r.p. limits, for which complete notification information has been received the Radiocommunication Bureau, and that have been brought into use before 22 November 2019.</p> <p>CEPT is considering Method B of the draft CPM report on 399.9-400.05 MHz as possible compromise solution to reach a single method at CPM 19-2.</p>
<p>CITEL (2019-04-12)</p>	<p>Draft Inter-American Proposal</p> <p>Resolution 765 (WRC-15) calls for the necessary technical, operational and regulatory consideration of the possibility of establishing in-band power limits for earth stations in the EESS and MetSat services in the frequency bands 401-403 MHz and in the MSS frequency band 399.9-400.05 MHz taking into account the results of ITU-R studies.</p> <p>The frequency bands 401-403 MHz and 399.9-400.5 MHz are used for Earth station uplink transmission by the Data Collection System (DCS) under the Earth exploration-satellite service (EESS) and meteorological-satellite service (MetSat) and the mobile-satellite service (MSS) allocations. DCS Earth stations as knows as data collection platforms (DCP) are deployed worldwide and communicate with GSO and non-GSO satellites.</p> <p>The Data Collection Platforms (DCP) is a network of sensors measuring and gather information activity related to the Earth, environmental and scientific applications, weather, environment observation: meteorological and oceanographic, seismic observation, volcanology, geodesy and geodynamics, fishing vessel monitoring, wildlife tracking, homeland security, law enforcement, test/evaluation, monitoring shipments of dangerous goods, humanitarian applications, managing water resources or tsunami warning system.</p> <p>The data collected by DCPs are transmitted to GSO and non-GSO satellite networks using the non-GSO MSS allocation in the band 399.9-400.05 MHz or the meteorological satellite allocation in the band 401-403 MHz. These systems usually operate using moderate to low equivalent isotropically radiated power (e.i.r.p.) levels, resulting in small link margins.</p> <p>These frequency bands are also used by non-geostationary satellites for telecommand space operations (see RR No 1.23) under the EESS, MetSat services, or under the MSS allocations and a growing number of these satellites are planned. The output power levels of the earth stations at</p>

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	<p>the antenna port peak e.i.r.p. of these telecommand links (Earth-to-space) can be much higher than the moderate to low power levels used for the DCS service links, leading to potential harmful interference to DCS satellite receivers.</p> <p>Recommendation ITU-R SA.2045 provides information on the performance and interference criteria for relevant geostationary-satellite orbit (GSO) and non-geostationary satellite (non-GSO) DCS in the frequency band 401-403 MHz. Recommendation ITU-R SA.2044 provides information on the current and future usage of non-GSO DCS in the frequency band 401-403 MHz, and the portioning of the frequency band to allow all DCS equal access to the spectrum. Recommendation ITU-R M.2046 provides a description, and the corresponding protection criteria for broadband noise and narrowband interference, of one MSS system that uses the frequency band 399.9-400.05 MHz (Earth-to-space).</p> <p>ITU-R studies considered in-band power limits for earth stations operating in the frequency ranges 399.9-400.05 MHz in the MSS and 401-403 MHz in the EESS and MetSat services.</p>
<p>RCC (2019-01-25)</p>	<p>Preliminary Position</p> <p>The RCC Administrations support measures to study this issue and establish emitted power limits for earth stations used for space operation functions in the frequency bands 401-403 MHz and 399.9–400.05 MHz in order to avoid interference to data collection systems in the meteorological-satellite service, Earth exploration-satellite service and mobile-satellite service taking into account the Report ITU-R SA [400 MHz-LIMITS].</p> <p>The RCC Administrations consider that specified limits shall not cover the frequency assignments to satellite systems registered in MIFR before 22 November 2019 in frequency bands 399.9-400.05 MHz and 401-403 MHz during the transition period spanning not less than 5 years following WRC-19. At the same time, equivalent isotropically radiated power limit for earth stations of the existing satellite data collection systems operating in the frequency band 401.898 – 402.522 MHz, for which complete notification information has been received by the Radiocommunication Bureau by 28 April 2007, can be increased to 12 dBW.</p>

Agenda Item 1.3 MetSat Upgrade / EESS Allocation (space-to-Earth) at 460-470 MHz

Agenda Item 1.3 MetSat Upgrade / EESS Allocation (space-to-Earth) at 460-470 MHz

<p>SFCG</p>	<p>SFCG supports raising the regulatory status of MetSat and EESS space-to-Earth allocations as proposed by Method B of the draft CPM text (ITU-R WP 7B Chairman Report 7B/326 Annex 2). SFCG recognizes the need for harmonization of the global operating environment to allow full development of critical MetSat/EESS systems. SFCG is of the opinion that the MetSat (space-to-Earth) allocation should be upgraded from secondary to primary status and a primary EESS (space-to-Earth) allocation should be added in the frequency band 460-470 MHz while providing protection for and not imposing any additional constraints on existing primary services to which the frequency band is already allocated. This should be realised while retaining the priority of MetSat over EESS as currently expressed in the RR. The SFCG supports the pfd mask for non-GSO satellites contained in Method B of the draft CPM text, and encourages SFCG member agencies to further develop a suitable pfd mask for GSO satellites.</p>
<p>APT (2019-01-12)</p>	<p>Preliminary Position</p> <p>APT members support further ITU-R sharing and compatibility studies in accordance with Resolution 766 (WRC-15), to conduct and complete in time for WRC-19, the necessary technical, operational and regulatory studies on the possibility to upgrade the secondary allocation of the meteorological-satellite service (space-to-Earth) to primary status and a primary allocation to the Earth exploration-satellite service (space-to-Earth) in the frequency band 460-470 MHz.</p> <p>The appropriate measures are necessary to be taken to ensure the protection of existing fixed, mobile, and broadcasting services and not to constraint their future developments in the frequency band 460-470 MHz and in the adjacent bands, and stations of the EESS and MetSat services shall not claim protection from the fixed, mobile, and broadcasting services. APT members also note that the priority of MetSat over EESS should be maintained.</p> <p>APT members note that further studies are required to address appropriate I/N protection criteria with regard to the PPDR systems. The decision on which Method to adopt will depend on the outcome of those studies.</p> <p>Stations of the EESS and MetSat services shall not cause harmful interference to fixed, mobile, and broadcasting services in 460-470 MHz and adjacent bands. APT members note that further studies are required to address appropriate pfd limits for GSO and non-GSO satellites to ensure this.</p> <p>Other Views from APT Members:</p> <p>Some administrations noted that continuous operation of the existing systems of EESS (space-to-Earth) and MetSat (space-to-Earth) is also necessary to be ensured.</p>
<p>ASMG (2018-07-23)</p>	<p>Preliminary Position:</p> <p>Due to the heavily used for the frequency band 460–470 MHz in the Arab countries for mobile and fixed services, so initially ASMG doesn’t support the possible upgrading of the secondary allocation to the meteorological satellite service (space-to-earth) to primary status and a primary allocation to the Earth exploration satellite service (space-to-earth) in the frequency band 460-470MHz.</p> <p>Follow up studies under this agenda item and ensure the protection of the existing services.</p>
<p>ATU (2018-09-17)</p>	<p>Preliminary Position</p> <p>APM19-3 agreed to take <u>Method A (No change)</u> as the African preliminary position.</p>
<p>CEPT</p>	<p>Preliminary Position</p>

Agenda Item 1.3 MetSat Upgrade / EESS Allocation (space-to-Earth) at 460-470 MHz

<p>(2018-11-30)</p>	<p>CEPT supports that the MetSat (space-to-Earth) allocation should be upgraded from secondary to primary status and that a primary EESS (space-to-Earth) allocation should be added in the frequency band 460-470 MHz provided that</p> <ul style="list-style-type: none"> • the protection of primary services in the frequency band and in adjacent frequency bands is ensured by the introduction of relevant pfd masks for GSO and non-GSO satellites • “MetSat and EESS earth stations shall not claim protection from stations in the fixed and mobile services”, as stated in recognizing f) of Res 766 • priority of MetSat over EESS as currently expressed in the RR is retained.
<p>CITEL (2019-04-12)</p>	<p>Preliminary Position</p> <p>NOC ARTICLE 5, SUP RESOLUTION 766 (WRC-15)</p> <p>Reason: <i>proposing not to introduce to the Radio Regulations in the 460-470 MHz frequency band can guarantee the current and planned use of this band for the deployment of mobile service IMT systems.</i></p> <p>Draft Inter-American Proposal</p> <p>Inclusion in the Table, a primary EESS (space-to-Earth) and MetSat allocation in the frequency band 460-470 MHz; provision of protection to the fixed and mobile services from MetSat and EESS satellite downlinks; provision of protection to MetSat downlinks from EESS satellite downlinks; and replaces RESOLUTION 766 with a new Resolution to provide the transitional measures for the existing Metsat/EESS frequency assignments to ensure that the existing satellite systems, including those for which complete notification information or coordination request was received by the Radiocommunication Bureau prior to the end of WRC-19 can continue their operation in compliance with the provisions adopted at WRC-19 as well as to provide the definition of pfd limits that will protect the terrestrial services.</p>
<p>RCC (2019-01-25)</p>	<p>Preliminary Position</p> <p>The RCC Administrations support upgrading the secondary allocation to the meteorological-satellite service (space-to-Earth) to a primary status as well as a primary allocation to the Earth exploration-satellite service (space-to-Earth) in the frequency band 460-470 MHz under the following conditions:</p> <ul style="list-style-type: none"> • upgrading the status of allocations of the frequency bands to the meteorological-satellite service and the Earth exploration-satellite service shall be applied both for future systems as well as existing systems of these radio services; • for the protection of the terrestrial services to which the frequency band 460-470 MHz is allocated on a primary basis, which ensure acceptable interference level, pfd limits for the specified satellite services shall be established to ensure acceptable interference level. In case of non-compliance with these limits, existing satellite systems of specified services can be used on the primary basis provided that no interference is caused to stations in terrestrial services, and they do not claim protection from stations in terrestrial services; • maintaining priority of the meteorological-satellite service over the Earth exploration-satellite service should be ensured. <p>The RCC Administrations do not support segmentation of the frequency band 460-470 MHz for geostationary and non-geostationary satellite systems.</p>

Agenda Item 1.5 Earth Stations in Motion at 17.7-19.7 GHz & 27.5-29.5 GHz

Agenda Item 1.5 Earth Stations in Motion at 17.7-19.7 GHz & 27.5-29.5 GHz

<p>SFCG</p>	<p>SFCG does not oppose the use of the 17.7-19.7 GHz by earth stations in motion communicating with geostationary space stations in the fixed-satellite service as per Method B of the draft CPM text (ITU-R WP4A Chairman Report 4A/826 Annex 28) provided that the protection of the EESS(passive) is ensured. SFCG notes that the introduction of ESIM for maritime and aeronautical use in the sub-band 18.6-18.8 GHz may change the sharing environment with EESS(passive) over the ocean area.</p>
<p>APT (2019-01-12)</p>	<p>Preliminary Position</p> <p>Taking into account Resolution 158 (WRC-15), APT Members support studies conducted by ITU-R for regulatory issues and conditions on sharing and compatibility between ESIM and existing services allocated in the frequency bands 17.7-19.7 GHz and 27.5-29.5 GHz not to cause unacceptable interference to and not claim protection from services operating in accordance with the RR in the above mentioned frequency bands.</p> <p>APT Members in principle support Method-B where a new footnote RR No. 5.A15 with a reference to a new WRC Resolution. However, APT Members note that consensus has not been reached on the new WRC Resolution as there remain a number of “options” in its texts and further improvement would be needed. Therefore, APT Members are encouraged to submit individual and/or joint proposal to further modify the draft Resolution at CPM19-2.</p> <p>For maritime ESIM, there is a general agreement on the condition of minimum distance within the range from 60 to 120km from the low-water mark officially recognized by coastal states. . The exact value is yet to be decided.</p> <p>The issue of responsibility and obligation of various entities involved in the operation of ESIM including administrations authorizing ESIM needs to be addressed and clearly included in Annex 3 to the draft WRC Resolution.</p>
<p>ASMG (2018-07-23)</p>	<p>Preliminary Position</p> <p>Follow up potential effect of ESIM with respect to other services allocated in frequency bands 17.7-19.7 and 27.5-29.5 GHz and considering the protection of these services.</p> <p>Study further interference mitigation techniques to protect fixed services used extensively in the band 27.5-29.5 GHz.</p>
<p>ATU (2018-09-17)</p>	<p>Preliminary Positions</p> <p>APM19-3 agreed to:</p> <p>Take <u>Method B</u> as the African preliminary position, which includes addition to a new footnote in Article 5 of the Radio Regulations with reference to a new resolution which will define operational and regulatory conditions for ESIMs including mask to protect terrestrial services in the band 27.5 to 29.5 MHz from aircraft ESIM, and an offshore separation distance to protect terrestrial services from maritime ESIM.</p> <ul style="list-style-type: none"> • Note that there is an increasing need for mobile-satellite broadband communications to support the broader agenda of enhancing broadband; • Note that the study results conducted in EACO, SADC and Senegal show that sharing and compatibility between the three types of ESIMs and existing terrestrial services allocated in the bands is feasible and therefore support the identification of the frequency bands 17.7 -19.7 GHz and 27.5 AND 29.5GHz to the different types of ESIM.

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	<ul style="list-style-type: none"> Note the positive study result both in ITYU-R WP4A and the sub-regions and countries that identification of the frequency bands 17.7 -19.7 GHz and 27.5- 29.5GHz for ESIM operations can be supported whilst ensuring protection of, and not imposing undue constraints on, other existing primary services allocated to these frequency bands. <p>Invite sub-regions and African countries to</p> <ul style="list-style-type: none"> Continue exploring different solutions (ie. the operational and regulatory conditions for ESIMs in item 4 above) incl band segmentation to ensure co-existence between Land ESIMs and Fixed services. Thoroughly examine the draft example WRC Resolution (AI 1.5) and its annexes esp the sections which are not yet agreed or discussed and propose a contribution for the next CPM-19-2 <p>Note that EACO was still considering this agenda item and did thus not have a common position.</p>
<p>CEPT (2018-11-30)</p>	<p>Preliminary Positions</p> <p>CEPT supports a regulatory framework for the operation of earth stations in motion (ESIM) in the bands 17.7-19.7 GHz and 27.5-29.5 GHz, while ensuring protection of, and not imposing undue constraints on, services allocated in those frequency bands.</p> <p>Due to the foreseen growing demand for ESIM and because ESIM terminals are ‘in motion’ and world-wide use, the regulatory framework for these terminals needs to be as simple and practicable as possible.</p> <p>Regarding the compatibility with terrestrial services in the 27.5-29.5 GHz bands the following conditions are considered as a way forward:</p> <ul style="list-style-type: none"> Maritime ESIM – together with other technical conditions such as appropriate e.i.r.p limits as specified in Decision ECC/DEC/(13)01, minimum distance of 70 km from the low water mark officially recognized by coastal states similar to the method adopted in Resolution 902 (WRC-03). ESIM should comply with this minimum distance unless prior agreement of the concerned administrations has been given. Aeronautical ESIM – together with other technical conditions, the pfd limits on the earth’s surface as specified in ECC Decision (13)01, should be used to ensure protection of MS and FS. This together with other consideration would ensure protection of terrestrial systems. ESIM should comply with these pfd limits unless prior agreement of the concerned administrations has been given. Land ESIM – operating within national boundaries no specific regulatory action or amendments to the Radio Regulations at WRC-19 are needed.

Agenda Item 1.5 Earth Stations in Motion at 17.7-19.7 GHz & 27.5-29.5 GHz

	<p>Regarding compatibility with satellite networks the ESIM characteristics shall remain within the envelope of the satellite network with which these ESIM communicate and the satellite network, when using ESIM, shall not cause more interference and shall not claim more protection than was coordinated when using typical earth stations in this satellite network.</p> <p>Regarding the 27.5-29.5 GHz band, the CEPT supports appropriate sharing techniques, including pfd mask for aeronautical ESIM, and minimum distance of 70 km from the low-water mark and maximum eirp of 24.44 dBW/14 MHz towards the territory of any coastal State for maritime ESIM in order to protect the fixed and mobile services allocated in the bands.</p> <p>CEPT is of the view that, in line with the principles already expressed in ITU Resolution 156 (WRC-15), the ESIM network operator shall have the capability to limit operations of such earth stations to the territory or territories of administrations where they are authorized and shall provide a point of contact for the purpose of tracing any suspected cases of interference from earth stations in motion.</p> <p>In case of interference from L-ESIM, the administration of the territory on which the L-ESIM operates is responsible for authorising the operation of L-ESIM on its territory and for acting. In case of interference from maritime or aeronautical ESIM, the administration of the country in which the ship or aircraft is registered and the administration responsible for the satellite network should have joined responsibility to act to remove interference.</p> <p>CEPT has developed a Roadmap on 5G (http://www.cept.org/ecc/topics/spectrum-for-wireless-broadband-5g#roadmap). In this respect it is noted that “Europe has harmonised the 27.5-29.5 GHz band for broadband satellite and is supportive of the worldwide use of this band for ESIM. This band is therefore not available for 5G”. It should also be noted that, in Europe, according to Decision ECC/DEC/(05)01, portions of the frequency band 27.5-29.5 GHz, are designated and can be used for the fixed service.</p>
<p>CITEL (2019-04-12)</p>	<p>Draft Inter-American Proposal</p> <p>In accordance with Method B of the draft text for the Conference Preparatory Meeting it is proposed that the addition of a new footnote to Article 5 of the Radio Regulations to include the use of ESIMs in frequency bands 17.7-19.7 GHz and 27.5-29.5 GHz, adopting a new Resolution that contains the specific conditions for ESIM operation and ensures the protection of primary services within them. The attached Resolution would contain guidelines to help administrations to authorize ESIMs in these bands.</p>

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<p>RCC (2018-03-15)</p>	<p>Preliminary Positions</p> <p>1. The RCC Administrations support a draft new Resolution [A15] (WRC-19) which, as a method of addressing WRC-19 agenda item 1.5, shall contain technical conditions and regulatory provisions with regard to operation of earth stations in motion (ESIM) communicating with geostationary space stations in the fixed-satellite service in radio frequency bands 17.7-19.7 GHz (space-to-Earth) and 27.5-29.5 GHz (Earth-to-space), to provide protection, based on existing criteria, of services having allocations in these (and adjacent) radio frequency bands, including EESS (passive) in the radio frequency band 18.6-18.8 GHz and future use of EESS (Earth-to-space) in the radio frequency band 28.5-29.5 GHz and also use of terrestrial services in the radio frequency bands 25.25-27.5 GHz and 27.5-29.5 GHz (method B in draft CPM Report).</p> <p>2. The RCC Administrations consider that with regard to satellite networks or systems in space services of other administrations in radio frequency bands 17.7-19.7 GHz and 27.5-29.5 GHz ESIM shall comply with the following conditions:</p> <ul style="list-style-type: none">a) using ESIM within earlier-registered frequency assignment to typical earth station of GSO FSS satellite network, the appropriate information on such a use shall be recorded in MIFR. If frequency assignment to a typical earth station was made under RR No. 11.38, ESIM can use this frequency assignment provided that ESIM shall not cause more interference, nor claim more protection than registered frequency assignment to the typical earth station. If frequency assignment to a typical earth station was made under RR No. 11.41, ESIM shall not cause unacceptable interference, nor claim protection from interference, with regard to recorded frequency assignments that served the basis for the registration of frequency assignment to a typical earth station under RR No 11.41;b) using ESIM within a new frequency assignment to GSO FSS satellite network requires notifying administration to provide information to the Bureau, according to RR Appendix 4, on the characteristics of ESIM, intended to communicate with the space station of this GSO FSS network, in order to be verified by the Bureau and to publish the results in specific section of BR IFIC. In this case such a frequency assignment to ESIM needs to be coordinated and registered, according to procedures of RR Articles 9 and 11 in the relevant GSO FSS satellite network before starting the use of ESIM;c) administration authorizing the use of ESIM in the territory under its jurisdiction is entitled to request ESIM to use only those frequency assignments to GSO FSS network which have been successfully coordinated, notified, implemented and recorded in the MIFR with a favourable finding under RR Article 11; <p>3. The RCC Administrations consider that, with respect to terrestrial services operating in the radio frequency bands 17.7–19.7 GHz and 27.5–29.5 GHz, ESIM shall comply with the following conditions:</p> <ul style="list-style-type: none">a) transmitting ESIMs in the frequency band 27.5–29.5 GHz shall not cause unacceptable interference to stations of terrestrial services in this band, operating in accordance with the Radio Regulations, or impose constraints on future development of these services;b) receiving ESIMs in the radio frequency band 17.7–19.7 GHz shall not claim protection from stations of terrestrial services in this band, operating in accordance with the Radio Regulations, or impose constraints on future development of these services;c) the notifying administration responsible for the GSO FSS satellite network with which ESIMs communicate shall submit to the Bureau a commitment that, in case of unacceptable interference, upon receipt of a report of such an interference, will take appropriate action to immediately cease or reduce the interference to the acceptable level. <p>4. The RCC Administrations consider that in the draft new Resolution [A15] (WRC-19) special measures shall be envisaged to exclude unauthorized use of ESIM in the territory of States that have not granted relevant authorizations (licenses). Regulations applicable to ESIM, which would</p>
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Agenda Item 1.5 Earth Stations in Motion at 17.7-19.7 GHz & 27.5-29.5 GHz

	be defined under the issue 9.1.7 of WRC-19 agenda item 9.1, shall be taken into account when developing regulations within the frameworks of WRC-19 agenda item 1.5.
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Agenda Item 1.6 Regulatory Framework for Non-GSO FSS at 37.5-39.5 GHz (↓) & 47.2-50.2 GHz (↑)

Agenda Item 1.6 Regulatory Framework for Non-GSO FSS at 37.5-39.5 GHz (↓) & 47.2-50.2 GHz (↑)

<p>SFCG</p>	<p>SFCG supports the revision of the current limits in Resolution 750 (Rev. WRC-15) for the band 50.2-50.4 GHz to protect EESS (passive) for both NGSO and GSO systems taking into account that studies have demonstrated the limits in Resolution 750 (Rev. WRC-15) do not sufficiently protect passive services in the band. Therefore SFCG supports Method D, Option 1 of the draft CPM text (ITU-R WP4A Chairman Report 4A/826 Annex 29). Studies have shown that compatibility between EESS (passive) and NGSO FSS in the band 36-37 GHz is achieved, noting however that they did not address the cold calibration channel. It is to be noted that sharing studies for SRS and EESS earth stations in the bands 37.5-38 GHz and 40-40.5 GHz are not listed in Resolution 159 (WRC-15). These studies will have to be addressed by WP 7B through the revision of Report ITU-R SA.2307 and Recommendation ITU-R SA.2079 for the band 37.5-38 GHz, and additional new report and recommendation for the band 40-40.5 GHz.</p>
<p>APT (2019-01-12)</p>	<p>Preliminary Position</p> <p>APT Members support the establishment of regulatory and procedural conditions for non-GSO FSS satellite systems in the frequency bands 37.5- 39.5 GHz (space-to-Earth), 39.5 - 42.5 GHz (space-to-Earth), 47.2 - 50.2 GHz (Earth-to-space) and 50.4 - 51.4 GHz (Earth-to-space) while ensuring protection to GSO satellite networks in FSS, MSS and BSS, and other existing primary services in the same bands as well as protection of the EESS (passive) in the frequency bands 36-37 GHz and 50.2-50.4 GHz and the radio astronomy in the frequency bands 42.5-43.5 GHz, 48.94-49.04 GHz and 51.4-54.25 GHz.</p> <ul style="list-style-type: none"> • APT Members in general support Method A of the draft CPM Report. • No APT Members support Methods B or C of the draft CPM Report. <p>Other Views from APT Members:</p> <p>Some APT Members support a possible revision of Method A or Method D of the draft CPM Report.</p> <p>Some APT Members oppose Method D of the Draft CPM Report on the basis that any modification to the limits for GSO networks in Resolution 750 (Rev.WRC-15) is outside the scope of the agenda item.</p> <p>Some APT Members support No Change for this agenda item.</p>
<p>ASMG (2018-07-23)</p>	<p>Preliminary Position:</p> <p>Follow up studies, considering the following:</p> <ul style="list-style-type: none"> • Protection of FSS GSO networks according to Article (22) • Review procedures for coordination trigger with respect to define epfd • Protection of current services in subject frequency bands and ensure protection of nearby allocations.
<p>ATU (2018-09-17)</p>	<p>Preliminary Position:</p> <p>Take Method A as the African preliminary position while continuing to further examine other Methods and their implementation (editor’s note: Method A presents a regulatory and technical implantation to modify RR Article 22 to include a Regulatory framework to enable non-GSO systems based upon a maximum allowable percent increase in GSO unavailability specified in the short-term and long-term performance objectives of the GSO links).</p> <p>Note that EXOWAS and EACO were yet to formulate a position on this agenda item and SADC had no firm view yet.</p>

Agenda Item 1.6 Regulatory Framework for Non-GSO FSS at 37.5-39.5 GHz (↓) & 47.2-50.2 GHz (↑)

	<p>Note that the last WP4A meeting (July 2018) proposed four methods to satisfy the agenda item. Methods A, B and C are almost the same. They only differ slightly on their implementation.</p> <p>Support the studies under Resolution 159 (WRC-15) which aim at developing a regulatory framework for new non-GSO FSS satellite systems, while protecting GSO FSS systems in the frequency bands above 30GHz.</p> <p>Encourage administrations to contribute to ongoing studies and ensure protection of existing FSS GSO but also exploring opportunities that might come with new NGSO systems.</p>
<p>CEPT (2018-11-30)</p>	<p>Preliminary Position</p> <p>CEPT supports the development of regulatory provisions, technical and operational conditions that would enable spectrally efficient operation of non-GSO FSS satellite systems in the frequency bands 37.5-42.5 GHz (space-to-Earth), 47.2-50.2 GHz (Earth-to-space) and 50.4-51.4 GHz (Earth-to-space) while ensuring protection for GSO satellite networks and stations of other existing services including passive services in the adjacent frequency bands.</p> <p>CEPT considers that the limits currently in Resolution 750 (Rev. WRC-15) are not sufficient for the protection of EESS (passive) in the adjacent frequency band 50.2-50.4 GHz from operation of non-GSO FSS satellite systems in the frequency bands under consideration in accordance with Resolution 159 (WRC-15). Appropriate unwanted emission limits for the protection of EESS (passive) are [-61.9] dBW/200 MHz for non-GSO user terminals and [-63] dBW/200 MHz for non-GSO gateways. CEPT is of the view that the effects of aggregate FSS interference from GSO satellite networks and non-GSO systems operating in the relevant bands should be taken into account to ensure the protection of the EESS (passive). CEPT considers that the unwanted emission limits for GSO FSS are not sufficient for the protection of EESS (passive) and should also be revised under WRC-19 AI 1.6. An appropriate unwanted emission limit is [-65.9] dBW/200 MHz for GSO.</p> <p>CEPT supports the development of the new Recommendation ITU-R S. [50/40 GHz Sharing Methodology] which describes in particular the methodology to calculate the maximum permissible level of interference from non-GSO satellite systems specified as single entry and aggregate limits for: a) increase in unavailability time allowance for degradation of GSO networks short term performance objectives b) a long term performance objective for GSO networks using Adaptive Coding Modulation. CEPT supports that this methodology takes into account the correlation between a fading event attenuating both the wanted signal and interfering signals in the frequency bands 40/50 GHz. In addition, CEPT supports that the conformity with these single-entry limits be evaluated using the calculation procedures in the new Recommendation ITU-R S.[50/40 GHz Sharing Methodology] and using the statistics of degradations due to the non-GSO system interference and fading issued from the latest versions of Recommendations ITU-R S.1503 and P.618, respectively.</p> <p>CEPT also supports the development the new Recommendation ITU-R S. [50/40 GHz Reference links] which contains characteristics of representative FSS GSO reference links.</p>
<p>CITEL (2019-04-12)</p>	<p>Draft Inter-American Proposal</p> <p>The use of the frequency bands 37.5-39.5 GHz (space-to-Earth), 39.5-42.5 GHz (space-to-Earth), 47.2-50.2 GHz (Earth-to-space) and 50.4-51.4 GHz (Earth-to-space) by a non-GSO-satellite system in the fixed-satellite service or mobile satellite-service is subject to the application of the provisions of No. 9.12 for coordination with other non-GSO-satellite systems in the fixed-satellite service and/or non-GSO satellite systems in the mobile satellite service, but not with non-GSO systems in other services.</p> <p>In the frequency bands 1 350-1 400 MHz, 1 427-1 452 MHz, 22.55-23.55 GHz, 30-31.3 GHz, 49.7-50.2 GHz, 50.4-50.9 GHz, 51.4-52.6 GHz, 81-86 GHz and 92-94 GHz, Resolution 750 (Rev.WRC-19) applies.</p>

Agenda Item 1.6 Regulatory Framework for Non-GSO FSS at 37.5-39.5 GHz (↓) & 47.2-50.2 GHz (↑)

<p>RCC (2019-01-25)</p>	<p>Preliminary Positions</p> <p>The RCC Administrations consider that studies on technical and operational issues and regulatory provisions in order to ensure operation of non-GSO FSS satellite systems in the frequency bands 37.5-42.5 GHz (space-to-Earth), 47.2-48.9 GHz (limited to feeder links), 48.9-50.2 GHz (Earth-to-space) and 50.4-51.4 GHz (Earth-to-space) shall ensure protection to GSO satellite networks in FSS, MSS and BSS, and also to stations of other existing services in the same and adjacent frequency bands.</p> <p>The RCC Administrations consider that technical conditions and regulatory provisions shall be developed to ensure sharing of the considered frequency bands between non-GSO FSS systems.</p> <p>The RCC Administrations support the revision of Resolution 750 (Rev. WRC-15) and establishment of appropriate unwanted emission limits for non-GSO FSS earth stations operated in the frequency bands 49.7-50.2 GHz and 50.4-50.9 GHz to protect EESS (passive) in the frequency band 50.2-50.4 GHz taking into account aggregate interference effect caused by existing radio services' systems in adjacent frequency bands. The RCC Administrations consider that Article 22 of the Radio Regulations shall establish the limitations for non-GSO FSS systems in order to ensure proper protection of GSO FSS and BSS systems in the frequency bands concerned. To identify the limits mentioned the RCC Administrations support the development of new Recommendation ITU-R S. [Methodology to assess FSS compatibility in the 50/40 GHz bands] for establishment of the appropriate protection criteria and maximum permissible levels of interferences from non-GSO FSS systems to GSO FSS networks in 40/50 GHz bands as well as new Recommendation ITU-R on characteristics of GSO FSS and BSS reference links in 50/40 GHz bands.</p>
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Agenda Item 1.7 Space Operations Service for Non-GSO Satellites With Short Duration Below 1 GHz

Agenda Item 1.7 Space Operations Service for Non-GSO Satellites With Short Duration Below 1 GHz

<p>SFCG</p>	<p>SFCG recognizes the growing number of non-geostationary orbit satellites with short duration (NGSO SD) missions and the associated spectrum requirements resulting from this activity.</p> <p>SFCG recognises the need for viable solution for NGSO SD missions, however none of the methods contained in draft CPM text (ITU-R WP7B Chairman Report 7B/326 Annex 3) provides a solution that is acceptable on a global level.</p> <p>SFCG does not support Methods B1/B2 due to the large number of radiosondes that operate in the frequency range 403-406 MHz and their susceptibility to harmful interference by the NGSO SD missions, as evidenced in the Working Party 7B sharing studies.</p> <p>SFCG is of the view that new SOS allocations or updates to existing SOS allocations are favourable to accommodate the growing number of short duration non-GSO satellites. However, any new regulatory measures under this agenda item should assure four key elements:</p> <p>An unambiguous definition must be given about what constitutes a “satellite with short duration mission”:</p> <ul style="list-style-type: none"> • A system with a period of validity of not more than three years that cannot be extended. • The case of a (or multiple) spacecraft with a lifetime of not more than three years, where the operator launches a (or multiple) replenishment/replacement spacecraft(s) such that the operator has persistent frequency and orbital characteristics and capabilities longer than three years, is not a short duration mission. <p>The solution shall not have negative impacts on science services already operating in the frequency bands proposed. Due to the importance of the frequency band 401-403 MHz for Data Collection Systems (GSO and non-GSO), any potential new allocation to SOS in this band added under this Agenda Item must be consistent with those limits established under WRC-19 agenda item 1.2.</p> <p>In the light of the importance of MetAids operations for the scientific community, used in particular for the calibration of the EESS (passive) measurements, SFCG does not support a potential new allocation to SOS in the the band 403-406 MHz.</p> <p>Any consideration of bands for use under this agenda item must exclude the 406-406.1 MHz COSPAS-SARSAT band as well as appropriate guard bands (see <i>resolves</i> 1, Resolution 205 (WRC-15) and Working Party 7B studies).</p>
<p>APT (2019-01-12)</p>	<p>Preliminary position</p> <p>APT Members support to satisfy the additional spectrum requirements by possible new allocations or an upgrade of the existing allocations to the SOS on a primary basis in accordance with Resolution 659 (WRC-15) if the studies show that sharing and compatibility both in-band and out-of-band, is feasible with existing services and systems and without any constraint to the incumbent services, both in-band as well as adjacent bands.</p>

Agenda Item 1.7 Space Operations Service for non-GSO satellites with short duration below 1 GHz

	<p>APT Members do not support the consideration of the following frequency ranges:</p> <ul style="list-style-type: none"> • Maritime mobile VHF radiocommunication in the frequency ranges 156-157.45 MHz, 160.6-160.975 MHz and 161.475-162.05 MHz, in accordance with RR No. 5.226 and Appendix 18 (Rev. WRC-15). • The frequency range 406-406.1 MHz that is dedicated for satellite emergency position-indicating radio beacons, in accordance with Resolution 205 (Rev. WRC-15); and • Frequency bands used by Global Maritime Distress and Safety System (GMDSS) included in Appendix 15 of RR. <p>Other Views from APT Members:</p> <ul style="list-style-type: none"> • Some APT Members support no changes to the Radio Regulations under this agenda item. • Some APT Members support the Method B1 in the draft CPM text. Some other APT Members do not support the Methods B1 and B2 in the draft CPM text. • There are concerns of APT Members on not needing to obtain agreement under RR No. 9.21 since many radio stations of land mobile service exist in the 148-149.9 MHz band.
<p>ASMG (2018-07-23)</p>	<p>Preliminary Position</p> <p>No change to the RR based on the results of the current sharing studies for the candidate frequency bands, which confirmed that the space operations service and other existing services in that frequency bands could not be shared.</p>
<p>ATU (2018-09-17)</p>	<p>Preliminary Position</p> <p>Take Method A (No Change) as the African preliminary position.</p> <p>Noted that EACO was still considering this agenda item and therefore did not have a common position.</p>
<p>CEPT (2018-11-30)</p>	<p>Preliminary Position</p> <p>CEPT supports additional allocations or upgrades of existing allocations to the space operation service for short duration mission satellites provided that:</p> <ul style="list-style-type: none"> • Studies of spectrum requirements are based on satellite missions planned and constellation development. • Studies of spectrum requirements show the need for additional allocations or upgrades of existing allocations. • Studies show compatibility with existing services. <p>CEPT supports the use of the current primary allocation to the space operation service in the space-to-Earth direction in the band 137-138 MHz, associated with relevant technical conditions (e.g. pfd limits).</p> <p>CEPT supports studies for possible modifications to the current regulatory situation including the removal of No 9.21 in the existing allocation to the space operation service in the Earth-to-space direction in the band 148-149.9 MHz.</p>

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	<p>As an alternative to the band 148-149.9 MHz, CEPT is still investigating a possible 1 MHz allocation to the space-operation service in the Earth-to-space direction limited to non-GSO satellites with short duration missions within the band 403-405 MHz.</p> <p>For the following bands, considered under this Agenda item, CEPT supports a “No Change”:</p> <ul style="list-style-type: none"> • 150.05-174 MHz; • 400.15-403 MHz; • 405-420 MHz. <p>CEPT is of the view that the band 272-273 MHz does not provide a solution to satisfy Agenda item 1.7 and hence supports a “No Change” for this band.</p> <p>CEPT recognises that studies under this Agenda item will have to take into account the considerations under Agenda item 1.2.</p>
<p>CITEL (2019-04-12)</p>	<p>Preliminary Proposal</p> <p>Add Space Operation Service allocation to the 404-405 MHz band, to satisfy the uplink spectrum requirement identified for satellites with short duration missions. The use of the band 404-405 MHz by the space operation service (Earth-to-space) is limited to non-GSO satellite systems having a limited period of validity of not more than three years. The period of validity of these systems shall not be extended.</p> <p><i>Reason: The period of validity is limited to ensure that this allocation is only used for short duration missions.</i></p> <p>Draft Inter-American Proposal</p> <p><u>NOC Article 5</u></p> <p><i>Reason: ITU-R sharing and compatibility studies between NGSO satellites with short duration missions and the incumbent services, with respect to invites ITU-R 2 and 3 of Resolution 659 (WRC-15), demonstrated that sharing is not feasible.</i></p> <p>SUP RESOLUTION 659 (WRC-15)</p> <p><i>Reasons: ITU-R studies showed that sharing between incumbent services and short duration non-geostationary satellites with short duration missions is not feasible in frequency bands considered under this resolution. The work is complete; therefore, the resolution is no longer needed.</i></p>
<p>RCC (2019-01-25)</p>	<p>Preliminary Position</p> <p>The RCC Administrations consider that spectrum needs for telemetry, tracking and command in the space operation service for non-GSO satellites with short duration missions should be based on real plans for satellite constellation development, taking into account to be able to meet these needs by existing allocations to the space operation service and to the services where a space station is operated in the frequency bands below 1 GHz.</p> <p>The RCC Administrations consider that when using existing or new frequency allocations to the space operation service below 1 for the purpose to command non-GSO satellites with short</p>

Agenda Item 1.7 Space Operations Service for non-GSO satellites with short duration below 1 GHz

	<p>duration missions, the protection shall be ensured to the incumbent services in the same and adjacent frequency bands.</p> <p>The RCC Administrations oppose using the frequency bands 148-174.0 MHz and 405.9-410 to command non-GSO satellites with short duration missions, since:</p> <ul style="list-style-type: none">• separate parts of the frequency band 148-174.0 MHz are actively used within the territory of RCC Administrations for fixed and mobile services;• frequency band 154-156 MHz is used for the radiolocation service on a primary basis according to No 5.225A in some countries of Region 1;• separate parts of the frequency band 156-162.05 MHz, as well as frequency band 405.9-406.2 MHz are used by GMDSS;• frequency bands 150.05-153.0 MHz and 406.1-410.0 MHz are allocated to the radio astronomy service on a primary basis, and the conducted studies have shown the difficulties of sharing between the space operation service and the above mentioned radio services.
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Agenda Item 1.11 Railway Radiocommunication Systems between train and trackside

Agenda Item 1.11 Railway Radiocommunication Systems Between Train and Trackside

<p>SFCG</p>	<p>SFCG supports the protection of existing allocations of space science services. Since there is no consensus on frequency bands for study, SFCG will monitor this agenda item at this time. Of particular concern is the potential for interference in the passive bands 86-92 GHz and 100-102 GHz.</p>
<p>APT (2019-01-12)</p>	<p>Preliminary Position</p> <p>APT Members are of the view that frequency bands (or parts thereof) within the ranges of 138-174 MHz, 335.4-470 MHz, 703-748 MHz, 758-803 MHz, 873-915 MHz, 918-960 MHz, 1 770-1 880 MHz, 43.5-45.5 GHz and 92-109.5 GHz, within the existing mobile service allocations, could be considered as potentially harmonized frequency bands for Region 3 for RSTT, in particular for train radio applications.</p> <p>APT Members invite other regional groups to consider frequency bands (or parts thereof) within the ranges of 138-174 MHz, 335.4-470 MHz, 873-915 MHz and 918-960 MHz, within the existing mobile service allocations, as global harmonized frequency bands for RSTT, in particular for train radio applications.</p> <p>APT Members agreed to add a new Method D to the draft CPM text for consideration by CPM 19-2.</p> <p>APT Members are also of the following views:</p> <ul style="list-style-type: none"> • International standards and global/regional harmonized frequency bands could facilitate the current and future development of RSTT. • Deployment of RSTT requires significant long term investment and a stable radio regulatory environment is important for the railway industry. • As Train Radio application of RSTT directly ensures passenger safety and security for train operations, harmonization of frequency bands for Train Radio application may have the priority among the four categories of RSTT applications. • The implementation of RSTT in the harmonized frequency bands shall not impose additional constraints on other primary services to which these frequency bands are already allocated. • The current and future ITU-R studies on RSTT should not be restricted to, or preclude, any particular relevant technology or delivery model. <p>Other Views from APT Members:</p> <p>Some APT Members support Method A of the current draft CPM Report on agenda item 1.11, considering that no change to the Radio Regulations is required under this agenda item and Recommendation ITU-R M.[RSTT_FRQ] listed relevant global and regional harmonized frequency ranges for consideration by administrations.</p> <p>Some APT Members support Method B or Method C of the current draft CPM Report on agenda item 1.11, are of the view that a new WRC Resolution is needed to provide regulatory certainty and guidance to administrations when making their frequency plans for RSTT. APT Members who support Method C also are of the view that a new WRC Resolution referring to Recommendation ITU-R M.[RSTT_FRQ] can potentially provide flexibility.</p> <ul style="list-style-type: none"> • Some APT Members support a new Method D. This new Method D proposes a new Resolution with references to the Recommendation ITU-R M.[RSTT_FRQ], where no specific frequency band is mentioned in the resolves part of the new Resolution.

Agenda Item 1.11 Railway Radiocommunication Systems between train and trackside

<p>ASMG (2018-08-23)</p>	<p>Preliminary Position</p> <p>Follow-up the studies about railway radio systems between the train and trackside within the current allocations of the mobile service.</p> <p>Ensuring protection of the existing services without imposing any new restrictions on them.</p> <p>Conduct a questionnaire for Arab administrations about railway radiocommunication systems..</p>
<p>ATU (2018-09-17)</p>	<p>Preliminary Position</p> <p>Take Method C as the African preliminary position which entails a new WRC resolution to provide a regulatory framework to guide the harmonization process, with reference s to the Recommendation ITU R M [RSTT_FRQ] for possible global and/or regional harmonization of frequency arrangements for RSTT to provide flexibility. This method provides support for global or regional harmonization of frequency bands for use by (RSTT) within the existing Mobile services allocation so that no additional constraints are imposed on services to which these frequency bands are already allocated.</p> <p>Note that SADC having reviewed the draft CPM report and the proceedings of the meetings of APM19-3 reviewed its position to align with the ATU preliminary Method C.</p> <p>Invite EACO administrations whose current position is method A to review in view of the current draft CPM report and consider the possibility of aligning its position with ATU preliminary of Method C.</p> <p>Task WG1 to foster a fully harmonized African position on or before the next APM 19-4.</p>
<p>CEPT (2018-11-30)</p>	<p>Preliminary Position</p> <p>CEPT is of the view that the harmonized use of frequencies for RSTT within existing mobile service allocations serves current and future demands of railway organisations on all operational levels.</p> <p>CEPT is of the view that no change to the RR is needed in response to WRC-19 Agenda item 1.11, except suppression of Resolution 236 (WRC-15).</p> <p>CEPT is of the view that harmonisation of frequencies for RSTT can be achieved through the course of ITU-R study group work by an applicable ITU-R Recommendation and/or Reports (e.g. non-mandatory Recommendation ITU-R M.[RSTT_FRQ_HARMONISATION] containing regional harmonisation measures). In this regard, CEPT highlights its existing framework for RSTT train radio on the basis of GSM-R, which serves interoperable cross-border railway operations. CEPT recognizes that there are other standards/technologies and frequency bands providing for RSTT. In addition, CEPT is of the view that Agenda item 1.11 does not cover the provision of public communication services for passengers.</p> <p>Accordingly, CEPT adopted an European Common Proposal (ECP) for agenda item 1.11, proposing no change to the RR, except suppression of Resolution 236.</p>

Agenda Item 1.11 Railway Radiocommunication Systems between train and trackside

<p>CITEL (2019-04-12)</p>	<p>Inter-American Proposal</p> <p><u>NOC</u> Radio Regulations Volumes 1, 2 and 3</p> <p>Reasons: The Administrations believe it is unnecessary to identify spectrum specifically for railway radiocommunication systems. Regional and global harmonization can be satisfied by developing applicable ITU-R Reports and Recommendations. Therefore, no change to the Radio Regulations or regulatory action is required under this agenda item.</p> <p>SUP RESOLUTION 236 (WRC-15) Railway radiocommunication systems between train and trackside</p> <p>Reasons: The studies towards regional and global harmonization can be satisfied through ITU-R Recommendations and Reports.</p>
<p>RCC (2019-01-25)</p>	<p>Preliminary Position</p> <p>The RCC Administrations consider that no changes to the Radio Regulations are necessary under WRC-19 agenda item 1.11 (method A).</p> <p>The RCC Administrations consider it reasonable to harmonize frequency bands within existing mobile service allocations at global or regional level through the development of ITU-R Recommendations and Reports.</p> <p>The RCC Administrations are of the view that harmonized use of frequency bands by railway transportation systems shall not impose additional constraints on services to which these frequency bands are already allocated, and provided interference to systems for government communication is avoided.</p>

Agenda Item 1.12 Intelligent Transport Systems (ITS)

Agenda Item 1.12 Intelligent Transport Systems (ITS)

SFCG	SFCG supports no change to the Article 5 of Radio Regulations under this agenda item. ITS may continue to operate in existing allocations for mobile service. Harmonization can be achieved through ITU-R Recommendations or Reports encouraging administrations to use globally or regionally harmonized bands.
APT (2019-01-12)	<p>Preliminary Position</p> <p>APT Members support possible harmonization of frequency bands in existing mobile service allocations for the implementation of evolving ITS. APT Members support the consideration of the frequency band 5 850-5 925 MHz, or parts thereof, as global harmonized frequency band for evolving ITS. APT Members also support the consideration of examples of ITS frequency bands in current use, as listed in the Annex of Recommendation ITU-R M.[ITS_FRQ] for regional harmonized ITS frequency bands.</p> <p>APT Members support the suppression of Resolution 237 (WRC-15).</p> <p>APT Members are also of the view that:</p> <ul style="list-style-type: none"> • Evolving ITS should not be restricted to, nor exclude, any particular evolving ITS technology including LTE based V2X and its evolution technologies. • The use of frequency bands by ITS should not impose additional constraints on other primary services to which these frequency bands are already allocated and should take appropriate account of the potential interference from other primary services, including FSS earth station uplinks. <p>Other Views from APT Members:</p> <p>No consensus was reached regarding the Method to satisfy the agenda item.</p> <p>Some APT Members support the Method of no changes to the Radio Regulations under this agenda item and satisfy this agenda item through ITU-R Recommendation and/or Report.</p> <p>Some APT Members support methods of adding one new WRC Resolution specifying harmonized frequency bands of evolving ITS or adding one new WRC Resolution providing harmonized frequency bands including through non-mandatory reference to ITU-R recommendation to satisfy this agenda item.</p> <ul style="list-style-type: none"> • Some APT Members prefer to specify harmonized frequency bands explicitly in an ITU-R Recommendation, and currently have no preference over whether the ITU-R Recommendation is referenced in a WRC Resolution or not.
ASMG (2018-07-23)	<p>Preliminary Position:</p> <p>Follow-up studies, and request administrations to consider the possibility of identifying appropriate frequency bands for these systems within the current allocations of the mobile service.</p> <p>Work on developing a vision for the use of intelligent transport systems (ITS) in Arab administrations and study the spectrum needs of these systems.</p> <p>Conduct a questionnaire for Arab administrations about the candidate bands to be used for ITS from the bands contained in draft Recommendation ITU-R.M. [ITS_FRQ]</p>
ATU (2018-09-17)	<p>Preliminary Position</p> <p>Take Method C as the African preliminary position which entails a new WRC resolution to encourage administrations to use globally and regionally harmonized frequency bands for ITS applications by referring to the most recent version of Recommendations ITU-R M. [ITS_FRQ].</p>

Agenda Item 1.12 Intelligent Transport Systems (ITS)

	<p>Suppress Resolution 237 (WRC-15). This method provides a regulatory framework for worldwide or regional harmonization for ITS applications through a new WRC Resolution and the most recent version of Recommendation ITU-R M.[ITS_FRQ].</p> <p>Note that the administration of EGYPT SUPPORTS Method B citing that too much flexibility is provide by method C which can erode the desired harmonization in case wher the ITU-R Recommendation is amended in the future.</p> <p>Note that EACO and SADC having reviewed the draft CPM report and the proceedings of the meetings of APM19-3 reviewed their position to align with the ATU preliminary position of Method C.</p> <p>Task WG1 o foster a fully harmonized African position on or before the next APM 19</p>
<p>CEPT (2018-11-30)</p>	<p>Preliminary Position</p> <p>CEPT is of the view that its existing regional harmonisation measures for ITS in the band 5 855-5 925 MHz are sufficient and no changes to the RR are required in response to WRC-19 Agenda item 1.12 except the suppression of Resolution 237 (WRC-15). CEPT is developing a revision of its existing harmonisation framework for ITS around 63-64 GHz.</p> <p>CEPT is of the view that harmonisation measures for ITS at ITU-R level can be achieved through the course of ITU-R study group work by applicable ITU-R Recommendations (e.g. Recommendation ITU-R M.[ITS_FRQ]).</p> <p>CEPT is also of the view that harmonisation of ITS under AI 1.12 is limited to the exchange of information to improve traffic management and to assist driving safety.</p> <p>In addition, CEPT is of the view that Road tolling (also known as Electronic Toll Collection (ETC)) in 5 795-5 815 MHz is not part of Agenda Item 1.12.</p> <p>Accordingly, CEPT adopted an European Common Proposal (ECP) for agenda item 1.12, proposing no change to the RR, except suppression of Resolution 237.</p>
<p>CITEL (2019-04-12)</p>	<p>Inter-American Proposals</p> <p>NOC Radio Regulations Volumes 1, 2 and 3</p> <p>Reason: It is unnecessary to identify spectrum specifically for Intelligent Transport Systems. Regional and global harmonization can be satisfied by developing applicable ITU-R Reports and Recommendations. Therefore, no change to the Radio Regulations or regulatory action is required under this agenda item.</p> <p>SUP RESOLUTION 237 (WRC-15) Intelligent Transport Systems applications</p> <p>Support: ARG, B, CAN, CLM, CTR, EQA, USA, GTM, MEX, PAN, PGY, DR, URG</p> <p>Reason: The studies towards regional and global harmonization can be satisfied through ITU-R Recommendations and Reports.</p>
<p>RCC (2019-01-25)</p>	<p>Preliminary Position</p> <p>The RCC Administrations consider that there is no need to modify RR within this Agenda Item (method A).</p> <p>The RCC Administrations support harmonization of frequency bands for evolving Intelligent Transport Systems at global and regional levels within existing mobile service allocations through the development of ITU-R Recommendations and Reports.</p> <p>The RCC Administrations are of the view that the use of frequency bands for evolving ITS shall not impose additional constraints on services to which these frequency bands are allocated..</p>

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<p>SFCG</p>	<p>SFCG supports the protection of existing space science service allocations. No new allocation/identification of spectrum to support mobile broadband systems (IMT-2020) should be made in or adjacent to bands allocated to space science services unless acceptable criteria and mandatory conditions are developed and implemented that ensure the protection and future usability of the concerned bands by those services. SFCG does not support consideration of any frequency band that is not included in the list of potential candidate bands as identified in Resolution 238 (WRC-15).</p> <p>With regard to the issue of in-band sharing, a particularly critical situation concerns the band 25.5-27 GHz which constitutes the only frequency bands allocated to EESS and SRS (space –to-Earth) that allows for the downlink of the large data volume required by many current and future EESS and SRS satellite missions. As recognized in Resolution 238 (WRC-15) (footnote 2 of <i>resolves</i> 2) for the 25.5-27 GHz band, it is fundamental for SFCG Member Agencies to be assured that EESS and SRS earth stations will continue to be able to expand in the future both in terms of number of satellites serviced and number of earth stations. Licences for these earth stations, which inherently provide protection from interference by IMT-2020 systems, must not be denied or restricted on the basis that such action may limit the IMT-2020 operational areas. Negative licensing experiences in the past with earlier cellular mobile systems in the band 2110-2120 MHz must not be repeated.</p> <p>Internationally agreed mandatory mechanisms and criteria should therefore be identified to ensure the future availability of these earth station licences. It is necessary to ensure that the IMT-2020 systems will be deployed only in urban and suburban areas, as is assumed in all of the compatibility studies and as stated by WP 5D. Further, protection of earth stations needs to be codified in the Radio Regulations to ensure consistency across administrations; protection of earth stations should not be considered as strictly a domestic issue.</p> <p>Protection of the various EESS (passive) bands adjacent to bands studied under this Agenda Item (23.6-24 GHz, 31.3-31.8 GHz, 36-37 GHz, 50.2-50.4 GHz, 52.6-54.25 GHz and 86-92 GHz) has to be ensured. For this appropriate mandatory unwanted emission limits for IMT-2020 devices have to be established. For some of these bands RR No.5.340 applies.</p> <p>All studies presented in ITU-R confirm that only a drastic reduction in IMT-2020 unwanted emissions provided by WP 5D (in particular in the band 23.6-24 GHz) can ensure protection of EESS (passive). The SFCG is concerned that the current operational specifications for IMT-2020 indicate that the IMT-2020 systems will be unable to comply with the unwanted emission levels determined in the studies. The SFCG is of the view that an IMT allocation/identification should not be made unless the proponents of IMT-2020 clearly demonstrate the ability to comply with the needed unwanted emission limits to ensure the protection of the EESS (passive). Relevant unwanted emission limits will have to be implemented in the Radio Regulations by inclusion in Table 1 of Resolution 750 (Rev.WRC-15).</p> <p>Other specific concerns of SFCG are:</p> <ul style="list-style-type: none"> • Protection of the 25.25-27.5 GHz band allocated to inter-satellite service (ISS) on primary basis, used for data relay satellite return links; • Protection of the 31.8-32.3 GHz band allocated to SRS deep space (s-E) on primary basis, used for transmitting data to the Earth from distant locations in space; • Protection of the 37-38 GHz band allocated to SRS (space-to-Earth), and the 40-40.5 GHz band allocated to EESS/SRS (Earth-to-space).
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	Frequency overlaps with other WRC-19 AI's (1.6 and 1.14) need to be taken into account.
<p>APT (2019-01-12)</p>	<p>Preliminary Position</p> <p>APT Members support the consideration of additional frequency bands for International Mobile Telecommunications (IMT), including possible additional mobile allocations on a primary basis, in accordance with Resolution 238 (WRC-15).</p> <p>APT Members also support ITU-R studies on spectrum needs for the terrestrial component of IMT and sharing and compatibility studies in accordance with Resolution 238 (WRC-15).</p> <p>Regarding the overlapping issue of the frequency bands within the scope of agenda item 1.13 associated with Resolution 238 (WRC-15) and those within the scope of agenda items 1.6, 1.14 and 9.1 (issue 9.1.9), APT Members are of the view that this issue would be handled by WRC-19 based on proposals submitted to the conference, discussion on these agenda items and WRC-19's decision on use of each frequency band mentioned in the corresponding Resolutions.</p> <p>APT Members have the following preliminary views for the frequency bands listed below.</p> <ul style="list-style-type: none"> • 24.25-27.5 GHz <p>APT Members support identification of the frequency band 24.25-27.5 GHz, which will provide administrations the flexibility to implement IMT in the entire band or portions thereof, through Method A2 in the draft CPM Report taking into account that protection of the incumbent services in this and adjacent frequency bands should be ensured by selecting an appropriate Option for each Condition under Method A2 in the draft CPM Report.</p> <p>Under Condition A2a (Protection measures for the EESS (passive) in the 23.6-24 GHz frequency band), APT Members support Option 1 in the Draft CPM Report (to revise Table 1-1 of Resolution 750 (Rev.WRC-15)). APT Members are encouraged to study and to provide unwanted emission limits to be included in this revision based on the range of unwanted emission levels applicable to different active service bands as indicated in Section 6.</p> <ul style="list-style-type: none"> • 31.8-33.4 GHz <p>APT Members support Method B1 (NOC), which is the only Method in the draft CPM Report for the frequency band 31.8-33.4 GHz due to difficulty of sharing and compatibility between IMT and the incumbent services.</p> <ul style="list-style-type: none"> • 37-40.5 GHz, 40.5-42.5 GHz and 42.5-43.5 GHz <p>APT Members support identification of the frequency bands 37-40.5 GHz, 40.5-42.5 GHz and 42.5-43.5 GHz, or portions thereof, for IMT, through Methods C2/D2/E2 in the draft CPM Report taking into account that protection of the incumbent services in these and adjacent frequency bands should be ensured by selecting an appropriate Option for each Condition under Methods C2/D2/E2 in the draft CPM Report.</p> <p>APT Members recognize that different administrations would implement IMT in different portions of the 37-43.5 GHz frequency range for IMT, and a global identification for IMT in the 37-43.5 GHz band, or portions thereof, would allow each country/region to implement IMT in different portions of the band in accordance with their national/regional considerations, while still facilitating the benefits of economies of scale.</p> <p>Other Views from APT Members:</p>

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<p>Some APT Members have the following views for the frequency bands listed below.</p> <ul style="list-style-type: none">• 24.25-27.5 GHz <p>Some APT Members support identification of the frequency band 24.25-27.5 GHz for IMT through Alternative 2 rather than Alternative 1 under Method A2 in the draft CPM Report.</p> <p>Under Conditions A2b to A2g;</p> <ul style="list-style-type: none">• Some APT Members support the Option “No condition is necessary” taking into account the results of sharing and compatibility studies performed by these APT Members.• Some other APT Members support other Options that apply mandatory conditions for IMT base stations to protect other services operating in accordance with the Radio Regulations. These mandatory conditions could include, but are not limited to, the maximum total radiated power (TRP), the mechanical tilt, the maximum deployment density and the antenna pattern. <p>One APT Member is not in favour of an identification for IMT in the frequency band 27.0 – 27.5 GHz, and proposes no change (Method A1) in Region 3.</p> <ul style="list-style-type: none">• 37-40.5 GHz <p>One APT Member is not in favour of an identification for IMT in the frequency band 37.0 – 40.5 GHz, and proposes no change (Method C1) in Region 3.</p> <ul style="list-style-type: none">• 45.5-47 GHz and 47-47.2 GHz <p>Some APT Members support identification of the frequency bands 45.5-47 GHz and 47-47.2 GHz for IMT, only if suitable studies are performed before WRC-19 that show sharing and compatibility with the incumbent services is feasible and appropriate regulatory measures are developed accordingly.</p> <p>Some APT Members are investigating the possibility of an identification for IMT in the frequency bands 45.5-47 GHz and 47-47.2 GHz.</p> <p>One APT Member is not in favour of an identification for IMT in the frequency bands 45.5-47 GHz and 47- 7.2 GHz that have not been studied within ITU-R yet.</p> <ul style="list-style-type: none">• 47.2-50.2 GHz <p>Some APT Members are investigating the possibility of an identification for IMT in some or all of the frequency band 47.2-50.2 GHz.</p> <p>One APT Member supports further studies in the frequency band 47.2-50.2 GHz, and a potential identification for IMT with priority if sharing is feasible under the framework of agenda item 1.13.</p> <p>One APT Member is not in favour of an identification for IMT in the frequency band 47.2-50.2 GHz.</p> <ul style="list-style-type: none">• 50.4-52.6 GHz <p>Some APT Members are investigating the possibility of an identification for IMT in some or all of the frequency band 50.4-52.6 GHz.</p> <p>One APT Member supports further studies in the frequency band 50.4-52.6 GHz, and a potential identification for IMT with priority if sharing is feasible under the framework of agenda item 1.13.</p>

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	<p>One APT Member is not in favour of an identification for IMT in the frequency band 50.4-52.6 GHz.</p> <ul style="list-style-type: none"> • 66-71 GHz <p>Some APT Members support identification of the frequency band 66-71 GHz for IMT, and are of the view that protection of the incumbent services in this frequency band should be ensured by selecting an appropriate Option for each Condition under the relevant Method in the draft CPM Report.</p> <p>Some APT Members are investigating the possibility of an identification for IMT in the frequency band 66-71 GHz.</p> <p>One APT Member is not in favour of an identification for IMT in the frequency band 66-71 GHz.</p> <ul style="list-style-type: none"> • 71-76 GHz <p>Some APT Members support identification of the frequency band 71-76 GHz for IMT, and are of the view that protection of the incumbent services in this and adjacent frequency bands should be ensured by selecting an appropriate Option for each Condition under the relevant Method in the draft CPM Report.</p> <p>Some APT Members are investigating the possibility of an identification for IMT in the frequency band 71-76 GHz.</p> <p>One APT Member is not in favour of an identification for IMT in the frequency band 71-76 GHz.</p> <ul style="list-style-type: none"> • 81-86 GHz <p>Some APT Members support identification of the frequency band 81-86 GHz for IMT, and are of the view that protection of the incumbent services in this and adjacent frequency bands should be ensured by selecting an appropriate Option for each Condition under the relevant Method in the draft CPM Report.</p> <p>Some APT Members are investigating the possibility of an identification for IMT in the frequency band 81-86 GHz.</p> <p>One APT Member is not in favour of an identification for IMT in the frequency band 81-86 GHz.</p>
<p>ASMG (2018-07-23)</p>	<p>Preliminary Position:</p> <ul style="list-style-type: none"> • Support identification of IMT2020 within the frequency band 24.25 -27.5 GHz with studying the following OOB limits in TG5/1 : <ul style="list-style-type: none"> ○ BS OOB Limits:-32to -37dBW/200 MHz ○ UE OOB Limits: -28to -30dBW/200 MHz With no restrictions on the use of IMT in this band • Support identification of IMT2020 within the following frequency bands: <ul style="list-style-type: none"> ○ 40.5 -42.5 GHz ○ 42.5 -43.5 GHz • Following up the ongoing studies on the other candidate bands as included in Resolution 238 (WRC 15) • Not supporting discussing any study or contribution on the frequency bands such as 28 GHz (27.5 –29.5 GHz). • Protection of the existing services within the candidate band • Considering the protection of the existing services within the adjacent bands
<p>ATU</p>	<p>Preliminary Position:</p>

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(2018-09-17)	<p>A) For the band 24.25 – 27.5 GHz (Band A)</p> <ol style="list-style-type: none"> 1. Take method A2, Alternatively 2, condition A2a:Option 1as the African preliminary position, which entails the following: <ul style="list-style-type: none"> ○ Allocating the band 24.25 – 25.25 GHz to the mobile services (except aeronautical mobile) on a primary basis in Region 1 and 2. ○ Identifying, globally, the band 24.25-27.5 GHz for IMT by a new footnote. ○ Revising Resolution 750 (WRC-15) , Table 1-1, to include the following IMT unwanted emission limits for 23.6 to 24.0GHz frequency band to protect EESS (passive). <ul style="list-style-type: none"> ○ BS : -32 to -37 dBW/200 MHz ○ UE: -28 to -30 dBW/200 MHz 2. Take the following conditions and options as the AFRICAN preliminary position with respect to other services: <ul style="list-style-type: none"> ○ Condition A2b: Option 3 – no condition necessary ○ Condition A2c: Option 4 – no condition necessary ○ Condition A2d: Option 4– no condition necessary ○ Condition A2e: Option 9 –no condition necessary ○ Condition A2f: Option 3 – no condition necessary ○ Condition A2g: Option 4 – no condition necessary 3. Note inputs received by the meeting regarding the need to define conditions necessary to ensure co-existence between IMT and those services for which the stated conditions apply. 4. Note the invitation from Satellite industry for ATU to further consider the protection of FSS and ISS space stations (and other space services) though the definition of a limit on the Total Radiated Power (TRP) for IMT base stations and limiting the pointing angle above the horizon for the main beam of IMT base stations. 5. TASK WG2 for further consideration of the noted issues above and recommend a way forward at APM 19-4 <p>B.) For the band 31.8 33.4GHz (Band B)</p> <p>Take method B1 (No Change) as the African preliminary position</p> <p>C.) For the band 37-40.5 GHz (Band C)</p> <ol style="list-style-type: none"> 1. Take method C2, Alternative 2 Condition C2a ; Option 4 as the African preliminary position, which entails the following: <ul style="list-style-type: none"> ○ Identifying of the band 37-40.5GHz to terrestrial component of IMT. ○ No condition necessary with respect to ESS in the lower adjacent band: 2. Note that with respect to EESS (passive) protection; Compatibility with EESS (passive) systems operating in the frequency band 36-37GHz may require that IMT systems comply with some unwanted emission levels. However, the frequency band 36-37GHz is also allocated on a primary basis to the MS and FS; and , coexistence conditions with the EESS (passive) are currently addressed in resolution 752 (WRC-07) 3. Take the following conditions and options as the African preliminary positon with respect to other services: <ul style="list-style-type: none"> ○ Condition C2b: Option 6 ○ Condition C2c: Option 3 ○ Condition C2d: Option 2 ○ Condition C2e: Option 3
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4. Note the concerns raised over the “no conditions apply” options with respect to co-existence of IMT with other services in the band.

5. Note the need to ensure equitable access to spectrum by all services allocated to the band, in particular FSS (for HDFSS applications).

6. Task WG2 for further consider the noted issues above and recommend a way forward at APM-19-4

D.) For the band 40.5- 42.5GHz (Band D)

1. Take Method D2, Alternative 2 as the African preliminary position, which entails upgrading the mobile allocation to a primary service in the Table of frequency allocations and identifying the frequency band for IMT by a new footnote in the frequency band 40.5-42.5GHz.

2. Take the following Conditions and options as the African preliminary position with respect to other services:

- Condition D2a:Option 5 –no condition necessary
- Condition D2b:Option 3 –no condition necessary
- Condition D2c:Option 3 –no condition necessary

3. Note the need for further consideration of conditions necessary for co-existence with other services, in particular FSS

4. Note the need to ensure adequate spectrum and conditions for HDFSS.

5. Task WG2 for further consider the noted issues above and recommend a way forward.

E.) For the band 42.5 – 43.5 GHz

1. Take Method E2 , Alternative 2 as the African preliminary position , which entails identifying the 42.5-43.5 GHz to terrestrial component of IMT

2. Take the following conditions and options as the African preliminary position:

- Condition E2a:Option 7 –no condition necessary
- Condition E2b:Option 3 –no condition necessary
- Condition E2c:Option 4 –no condition necessary

3. Note the need for further considerations of conditions necessary for co-existence with other services, in particular FSS.

4. Task WG2 to further consider the noted issue above and recommend a way forward.

F.) For the band 45.5-47.0 GHz (Band F)

1. Note that no studies on this band were conducted by TG5/1.

2. Defer a decision on this band in anticipation of output contributions with studies on the band at CPM19-2.

G.) For the band 47- 47.2 GHz (Band G):

1. Note that no studies on this band were conducted by TG5/1.

2. Defer a decision on the band in anticipation of input contributions with studies on the band at CPM19-2.

H.) For the band 47.2 – 50.2 GHz (Band H)

1. Take method H2, Alternative 2 AS THE African preliminary position, which entails identifying the 47.2-50.2 GHz frequency band for the terrestrial component of IMT.

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<p>2. Take the following conditions and options as the African preliminary position:</p> <ul style="list-style-type: none">○ Condition H2a: Options 2 – Resolution 750 (Rev. WRC-19) in Table 1-1 , taking into account RR No 5.340.1○ Condition H2b: Option 8 – no condition necessary○ Condition H2c: Option 3 – no condition necessary○ Condition H2d: Option 4– no condition necessary <p>3. Note that in the range 47.2-52.6 GHz, appropriate balance should be ensured between spectrum available for IMT, for FSS terminals and FSS gateways.</p> <p>4. Note the need for further consideration of conditions necessary for co-existence with other services, in particular FSS.</p> <p>5. Task WG2 for further consider the noted issues above and recommend a way forward.</p> <p>I.) For the band 50.4- 52.6 GHz (Band I)</p> <p>1. Take Method I2, Alternative 2 as the African preliminary position: Identification to Terrestrial component of IMT in the 50.4-52.6GHz (in the Mobile service).</p> <p>2. Take the following conditions and options as the African preliminary position:</p> <ul style="list-style-type: none">○ Condition I2a: Options 2 – Resolution 750 (rev. WRC-19) in Table 1-1, taking into account RR No. 5.340.1○ Condition I2b: Option 7: no condition necessary○ Condition I2c: Option 4: no condition necessary <p>J.) For the band 66-71GHz (Band J)</p> <p>1. Take Method J2, Alternative 2 as the African preliminary position which entails identification to terrestrial component of IMT in 66-71GHz (in the mobile services)</p> <p>2. Take the following conditions and options as the African preliminary position:</p> <ul style="list-style-type: none">○ Condition J2a: option 1<ul style="list-style-type: none">▪ Take into account the latest technical characteristics of IMT and MGWS/WAS▪ To invite ITU-R to develop Recommendations and Reports that will assist administrations in ensuring that applications and services in the band 66-71GHz can utilize the band efficiently incl the development of appropriate sharing protocols between IMT and MGWS/WAS where needed.○ Condition J2b: Option 1 – Revise RR No. 5.553 to remove the 66-71GHz frequency band from that footnote.○ Condition J2c: Option 3 – no condition necessary <p>3. Note the need to consider the impact of an IMT identification in the band to the future of the MGWS/WAS ecosystem.</p> <p>4. Task WG2 to further consider the noted issue above and recommend a way forward.</p> <p>K.) For the band 71-76GHz (Band K)</p> <p>Continue with the consideration of the band at sub-regional and WG2 levels with a view to developing an appropriate solution to support (in terms if method, alternative and option) as appropriate.</p> <p>L.) For the band 81-86GHz (Band L)</p> <p>Continue with the consideration of the band at sub regional and WG2 levels with a view to developing an appropriate solution to support (in terms if method, alternative and option) as appropriate.</p>
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<p>CEPT (2018-11-30)</p>	<p>Preliminary Position:</p> <p>CEPT supports the results of the ITU-R studies¹ on IMT spectrum needs in the range 24.25-86 GHz. CEPT supports sharing and compatibility studies for the bands listed in Resolves 2 of Resolution 238 (24.25-27.5 GHz, 31.8-33.4 GHz, 37-43.5 GHz, 45.5-50.2 GHz, 50.4-52.6 GHz, 66-76 GHz and 81-86 GHz), with the focus on the frequency bands 24.25-27.5 GHz, 40.5-43.5 GHz and 66-71 GHz.</p> <p>CEPT supports the identification of global bands for IMT among the bands listed in resolves to invite ITU-R 2 of Resolution 238, taking into account the results of sharing and compatibility studies with existing services. Bands outside those listed in resolves to invite ITU-R 2 of Resolution 238 are not supported for consideration under this Agenda item.</p> <p>The following bands are supported for IMT identification and where appropriate, allocation to the Mobile Service on a primary basis:</p> <ul style="list-style-type: none"> • 24.25-27.5 GHz: CEPT has confirmed the clear priority for this band through the adoption of a harmonisation decision (ECC Decision (18)06) including relevant conditions for the protection of other services in the band and adjacent bands.. The Decision was developed based on studies that assumed an individual authorisation regime. CEPT supports the unwanted emission limits of -42 dBW/200 MHz Total Radiated Power (TRP) for base stations and -38 dBW/200 MHz TRP for mobile terminals, into the 23.6-24 GHz band, to be included as mandatory limits in Resolution 750. CEPT is considering RR N° 5.536A, 5.536B and 5.536C in relation with coexistence with EESS and SRS earth stations. • 40.5 – 43.5 GHz: CEPT proposes an IMT identification for 40.5-43.5 GHz. This is a priority band for CEPT and already identified for future harmonisation in Europe. CEPT considers that the bands 40.5-43.5 GHz has good potential for future harmonisation in Europe. The process for developing harmonisation decisions for additional bands (other than 26 GHz) may be launched immediately after WRC-19, under the assumption of an individual authorisation regime. • 66-71 GHz: CEPT supports that IMT and MGWS/WAS should have equal access to the frequency band 66-71 GHz. An identification should not confer any priority to IMT and this should be emphasized in the footnote identifying the band and associated WRC Resolution. CEPT supports modifying No. 5.553 to remove the frequency band 66-71 GHz from this footnote. <p>Other candidate bands considered:</p> <ul style="list-style-type: none"> • 37-40.5 GHz: whilst CEPT will not propose identification and has no intention of using 37-40.5 GHz for IMT, CEPT will not oppose a global IMT identification for the full 37-43.5 GHz range. • The following band s are not supported for the IMT identification and CEPT is proposing NOC: <ul style="list-style-type: none"> ○ 31.8-33.4 GHz ○ 71-76 GHz ○ 81-86 GHz.
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¹ i.e. excluding Annex B from Doc ITU-R TG5/1 Document 5-1/36 Attachment 1: Information on spectrum needs in some countries

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	<p><i>Note: CEPT has developed a Roadmap on 5G (http://cept.org/ecc/topics/spectrum-for-wireless-broadband-5g#roadmap). In this respect it is noted that “Europe has harmonised the 27.5-29.5 GHz band for broadband satellite and is supportive of the worldwide use of this band for ESIM. This band is therefore not available for 5G”.</i></p>
<p>CITEL (2019-04-12)</p>	<p>Preliminary Position:</p> <p>In spectrum shared with FSS (E-s), restrictions should be applied so that IMT BS antenna beams are ‘normally’ kept below the horizon in order to ensure protection of FSS space station receivers as the situation where BS antenna beams go above the horizon was not studied and this situation could increase the risk of interference. In addition, the maximum e.i.r.p. density of IMT BS operating in the same bands as FSS uplink should be limited to a level consistent with studies undertaken in TG 5/1 (i.e. greater than the input assumptions provided by ITU-R WP 5D by a number of dB based on the margin of protection found in the sharing studies performed by ITU-R TG 5/1) that provides maximum flexibility to IMT while still providing sufficient protection to space station receivers.</p> <p>The frequency bands 37-40 GHz and 42-43.5 GHz are identified for use by administrations wishing to implement the terrestrial component of International Mobile Telecommunications (IMT). This identification does not preclude the use of these frequency bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations.</p> <p>Preliminary Position</p> <ul style="list-style-type: none"> • Allocation to mobile service on a primary basis and identification of the band 24.65-24.75 GHz in Region 2 for IMT. Identification of the band 24.65-27.5 GHz for IMT shall contribute to meeting additional spectrum needs in the bands above 24 GHz. • The identification of the band 37-40 GHz to IMT will help satisfy the need for additional spectrum in the bands above 24 GHz. • There is no consideration to do any change on frequency band 40-40.5 GHz in Region 2. • Identification of the band 42-42,5 GHz to IMT. The identification of the band 42-42,5 GHz to IMT in Region 2 will help satisfy the need for additional spectrum in the bands above 24 GHz. • Identification of the band 42,5-43,5 GHz to IMT. The identification of the band 42,5-43,5 GHz to IMT in Region 2 will help satisfy the need for additional spectrum in the bands above 24 GHz. • Identification of the band 50.4-51.4 GHz for IMT. Identification of the band 50.4-51.4 GHz to IMT will help meet the need for additional spectrum in the bands above 24 GHz. • Identification of the band 51.4-52.6 GHz for IMT. Identification of the band 51.4-52.6 GHz to IMT will help meet the need for additional spectrum in the bands above 24 GHz <p>Preliminary Position</p> <p>The identification of the band 66-71 GHz to IMT will help satisfy the need for additional spectrum in the bands above 24 GHz.</p> <p>Draft Inter-American Proposal</p>

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	<p>The identification of the band 37-43.5 GHz to IMT will help satisfy the need for additional spectrum in the bands above 24 GHz.</p> <p>Draft Inter-American Proposal</p> <p>Studies were only performed between MSS and IMT-2020 systems in the 45.5-47 GHz band. The other incumbent services in 45.5-47 GHz were not studied. Therefore, it has not been demonstrated that the incumbent services can be protected, as required by Resolution 238 (WRC-15) and No Change (<u>NOC</u>) is proposed for the 45.5-47 GHz and the 47-47.2 GHz bands.</p> <p>Draft Inter-American Proposal</p> <p>As studies show sharing with other services operating in 47.2-48.2 GHz is feasible, these modifications provide an identification for IMT in the frequency range 47.2 to 48.2 GHz. This facilitates harmonized worldwide bands for IMT, which are highly desirable in order to achieve global roaming and the benefits of economies of scale. This identification does not preclude the use of this frequency band by any application of the services to which they are allocated, and does not establish any priority in the Radio Regulations.</p> <p><u>NOC</u> in the 47.5-51.4 GHz band so as to avoid any potential impacts to existing services.</p> <p>Draft Inter-American Proposal</p> <p>IMT identification in the 66-71 GHz band would be counterproductive to achieving international harmonization as many administrations confirmed plans for implementation of licence-exempt technologies such as Multiple Gigabit Wireless Systems (MGWS) systems.</p> <p>Inter-American Proposal</p> <p>The identification of the band 24.25-27.5 GHz to IMT will help satisfy the need for additional spectrum in the bands above 24 GHz. As studies show sharing with other services operating in 24.25-27.5 GHz is feasible, these modifications provide an identification for IMT in the frequency range 24.25-27.5 GHz and a primary allocation to the Mobile service, except aeronautical mobile, in 24.25-25.25 GHz. Protection of passive services in 23.6-24 GHz is addressed through the modification of No. 5.338A.</p>
<p>RCC (2019-01-25)</p>	<p>Preliminary Position</p> <p>The RCC Administrations consider that when developing technical conditions and regulatory provisions for the allocation of frequency bands to the MS and their identification for IMT it is necessary to ensure protection of other services having allocation in the considered and adjacent frequency bands taking into account the need in their development, first of all for existing systems or those planned to be used by RCC Administrations.</p> <p>The RCC Administrations do not oppose the allocation of the frequency band 24.25-25.25 GHz to mobile, excluding aeronautical mobile, service on a primary global basis, as well as the identification of the frequency band 24.25-27.5 GHz for IMT within land mobile service subject to incorporating the conditions in the Radio Regulations for IMT stations to protect:</p>

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- space stations in the Earth exploration-satellite service (EESS) (passive) in the frequency bands 23.6-24 GHz, 50.2-50.4 GHz and 52.6-54.25 GHz from unwanted emissions of IMT stations;
- space stations in the fixed-satellite service and inter-satellite service.

In order to ensure this protection it is necessary to limit the emission from IMT base stations in upper hemisphere, as well as to limit unwanted emissions of IMT stations in frequency bands 23.6–24.0 GHz, 50.2–50.4 GHz and 52.6–54.25 GHz allocated to EESS (passive).

The RCC Administrations oppose allocation of the frequency band 31.8-33.4 GHz to mobile service on a primary basis and identification of the frequency bands 31.8-33.4 GHz and 42.5-43.5 GHz, 71–76 GHz and 81–86 GHz for IMT systems, as the results of ITU-R studies in these bands have concluded that IMT systems are incompatible with the stations of the incumbent services.

The RCC Administrations do not support the identification of the frequency bands 45.5–47.0 GHz and 66–71 GHz for IMT systems until ITU-R concludes the compatibility studies with existing primary radio services.

Position of the RCC Administrations on frequency bands 37.0–40.5 GHz, 40.5–42.5 GHz, 47.0–50.2 GHz and 50.4–52.6 GHz included in Resolution **238 (WRC-15)**, is specified taking into account the need to protect both passive and active services.

The RCC Administrations oppose the consideration of frequency bands not specified in Resolution **238 (WRC-15)** for IMT systems in this WRC-19 agenda item.

Agenda Item 1.14 High Altitude Platform Systems (HAPS)

Agenda Item 1.14 High Altitude Platform Systems (HAPS)

<p>SFCG</p>	<p>SFCG prefers Method A, “no change.” Assuming that the ITU-R studies show a need for identification of additional spectrum for HAPS in Region 2, SFCG does not support the identification of frequency bands in 21.4-22 GHz and 24.25-27.5 GHz for HAPS, unless acceptable sharing conditions are agreed upon that do not adversely impact the space research, Earth exploration-satellite, or inter-satellite services.</p> <p>As with WRC-19 agenda item 1.13, a particularly critical situation concerns the band 25.25-27.5 GHz which is heavily used globally for high data volume downlinks by many current and future EESS and SRS satellite missions. Within this band, inter-satellite links must also remain protected. This band is indicated as a candidate band for HAPS identification only for Region 2. If such an allocation is made, it should be accompanied by a WRC-19 Resolution which includes sufficient protection for these services. The Resolution should state that: “the provisions of No. 5.536A shall not apply and the provisions of RR Nos. 9.17 and 9.18 shall apply. Administrations operating HAPS systems shall not claim protection from SRS/EESS stations operated by other administrations.” The resolution should have PFD limits which protect SRS/EESS services.</p> <p>Identification of the band 24.25-27.5 GHz for HAPS under this agenda item must also be supported by studies showing the 21.2-21.4 GHz and 23.6-24.0 GHz EESS (passive) bands will be adequately protected from the HAPS unwanted emissions. The discussed above Resolution should contain EIRP density limits which protect these EESS (passive) services. Any revision of the current identifications for HAPS shall also continue to ensure that science services are protected.</p>
<p>APT (2019-01-12)</p>	<p>Preliminary Position</p> <p>Noting that the spectrum needs for HAPS is in the range from 396 MHz to 2 969 MHz for the uplink and from 324 MHz to 1 505 MHz for downlink, and that amount for the frequency bands designated to HAPS in Radio Regulations is 600 MHz for global and 1200 or 1360 MHz for some administrations in Region 1 and 3, according to the Report ITU-R F.2438-0. APT Members support the development of necessary regulatory procedures, taking into account existing frequency bands that have already been designated for HAPS in the Radio Regulations.</p> <p>APT Members also support sharing and compatibility studies between HAPS and other services to ensure protection of the services to which frequency bands are allocated and their future developments. Based on these ITU-R studies, appropriate methods and options as well as regulatory procedures should be considered in order to ensure protection of all existing services and their future development in accordance with Resolution 160 (WRC-15).</p> <p>APT Members support the need to review existing HAPS designations that have not been utilised before designating any possible new HAPS frequency bands.</p> <p>Regarding the overlapping issues of the frequency bands within the scope of agenda item 1.14 and agenda items 1.5, 1.6 and 1.13, and various sharing study results in the preliminary draft new Report ITU-R F.[HAPS-39GHz] and the preliminary draft new report ITU-R F.[HAPS-31GHz], APT Members are of the view that these issues need to be handled by WRC-19 before any new designations.</p> <p>APT Members are of the view that any consideration of the frequency band 24.25-27.5 GHz in Region 2 under this agenda item should not limit the possibility to identify the band for IMT on a global level under Agenda item 1.13.</p>

Agenda Item 1.14 High Altitude Platform Systems (HAPS)

	<p>Other Views from APT Members:</p> <p>Some APT Members support consideration of use of gateway and fixed terminal links for HAPS in the frequency band 38-39.5GHz on the global level.</p> <p>Some APT Members support Method A No Change to Radio Regulations and support existing provisions in the Radio Regulation remain unchanged in the corresponding frequency bands for HAPS.</p> <ul style="list-style-type: none"> • Some APT Members support Method B1 option1 for band 27.9-28.2GHz and Method B1 option 1a for band 31-31.3GHz, and with an appropriate modification to the example Resolution text.
<p>ASMG (2018-07-23)</p>	<p>Preliminary Position</p> <p>On preliminary basis, no new frequency identifications for HAPS</p> <p>Following-up the on-going studies in ITU-R</p> <p>Emphasizing on the necessity of:</p> <ul style="list-style-type: none"> • clarifying of technical and operational characteristics of HAPS • providing clear technical solutions for protecting the existing allocations from potential interference caused by HAPS. • studying the appropriateness of the previously identified frequency bands to the HAPS applications.
<p>ATU (2018-09-17)</p>	<p>Preliminary Position</p> <p>APM 19-3 agreed to:</p> <p>Take Method B1/2 as the African preliminary position which provides for the designation of certain fixed service bands for HAPS, in accordance with Resolution 160 (WRC-15) with options:</p> <ul style="list-style-type: none"> ○ Method B1 – Revision of the regulatory provisions for HAPS in the Fixed service (FS) with a primary status in bands already designated for HAPS: <ul style="list-style-type: none"> ▪ an amended footnote for a worldwide identification of 27.9-28.2 GHz and 31.-31.3GHz ▪ an updated Resolution 122 to facilitate the use for HAPS in 47.2 -47.5 GHz and 47.9-48.2 GHz ○ Method B2 –Add new designation(s) for HAPS in bands already allocated to the FS with a primary status: <ul style="list-style-type: none"> ▪ A new footnote for a worldwide designation of this band 38-39.5GHz
<p>CEPT (2018-11-30)</p>	<p>Preliminary Position</p> <p>CEPT supports, while ensuring protection of existing services and their future development including other applications of the fixed service (in accordance with Resolution 160 (WRC-15)) and subject to the conclusions of the ongoing sharing and co-existence studies for the bands mentioned below and, as appropriate, in the adjacent bands:</p>

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	<ul style="list-style-type: none"> • Worldwide designations for transmissions from high altitude platform stations (in the downlink direction) in the bands 6 440- 6 520 MHz, 27.9-28.2 GHz. <ul style="list-style-type: none"> ○ Worldwide designations for transmissions to and from high altitude platform stations (in the uplink and downlink directions) in the bands 31-31.3 GHz and 38-39.5 GHz. • For the bands 6 440-6 520 MHz, 27.9-28.2 GHz, 31-31.3 GHz, 38-39.5 GHz, 47.2-47.5 GHz and 47.9-48.2 GHz, CEPT is supporting new footnotes and associated resolutions and/or appropriate modifications to the existing footnotes and associated resolutions. • CEPT is of the view that any consideration of the frequency bands 21.4-22 GHz and 24.25-27.5 GHz in Region 2 under this Agenda item shall be accompanied by appropriate protection of: ISS in the band 24.45-24.75 GHz, ISS in the band 25.25-27.5 GHz, EESS (passive) in the bands 21.2-21.4 GHz, 22.21-22.5 GHz and 23.6-24 GHz, EESS and SRS (space-to-Earth) in the band 25.5-27 GHz and FSS in the bands 24.75-25.25 GHz and 27-27.5 GHz. This includes the appropriate protection of the mobile service in the band 24.25-27.50 GHz as results of consideration under WRC-19 agenda item 1.13. ▪ CEPT is of the view that any consideration of the frequency band 24.25-27.5 GHz in Region 2 under this Agenda item should not limit the possibility to identify the band for IMT on a global level under Agenda item 1.13.
<p>CITEL (2019-04-12)</p>	<p>Preliminary Proposals</p> <p>For the bands 6 440-6 520 MHz and 6 560-6 640 MHz, maintain the existing designation for HAPS without modifications.</p> <p>Add a footnote allowing HAPS to operate in the fixed service allocation in the 21.5-22 GHz band. The 21.4-21.5 GHz band is excluded due to sharing results with aeronautical mobile service operations.</p> <p>Add a new Resolution specifying the operating requirements for HAPS to protect other services.</p> <p>Add new footnotes to identify the frequency ranges 27.9 – 28.2 GHz and 31-31.3 GHz for use by HAPS. If the bands 27.9-28.2 GHz and 31-31.3 GHz are modified as proposed, there would need to be consequential modifications and/or suppression of Nos. 5.537A and 5.543A.</p> <p>Add a footnote to the fixed service allocation in support of worldwide HAPS use in the 38-39.5 GHz band.</p> <p>Modify footnote 5.552A to reference an updated Resolution 122, which addresses the current worldwide HAPS designation in the 47.9-48.2 GHz band.</p> <p>Draft Inter-American Proposal</p> <p>Add a footnote that aims to facilitate the use of HAPS downlink on a global level in the bands 6 440-6 520 MHz by identifying the band for HAPS downlink and protect incumbent services with an associated new Resolution.</p> <p>Add a footnote to the fixed service allocation in support of a HAPS identification in the 27.9-28.2 GHz and 31-31.3 GHz bands and to suppress the existing HAPS related footnote.</p> <p>Draft Inter-American Proposal</p> <p>Add a primary fixed service allocation to the 24.25-25.25 GHz band and a new identification for HAPS in the band 24.25-25.25 GHz in Region 2. The limitation of the use of HAPS in the HAPS-to-ground direction in the 24.25-25.25 GHz band is to ensure the protection of the:</p>

Agenda Item 1.14 High Altitude Platform Systems (HAPS)

	<ul style="list-style-type: none"> • FSS (E-s) operating in the 24.75-25.25 GHz band; • ISS operating in the 24.45-24.75 GHz band; • EESS (passive) operating in the 23.6-24 GHz band. <p>Draft Inter-American Proposal</p> <p>The allocation to the fixed service in the bands 47.2-47.5 GHz and 47.9-48.2 GHz is identified for use by high altitude platform stations (HAPS). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated on a co-primary basis and does not establish priority in the Radio Regulations. Such use of the fixed-service allocation in bands 47.2-47.5 GHz and 47.9-48.2 GHz by HAPS shall be in accordance with the provisions of Resolution 122 (Rev.WRC-19)</p> <p>Amend the existing Resolution 122 (WRC-19) to take into account last technological improvement of HAPS technology.</p> <p>Modify Article 11 to reflect the new footnotes.</p>
<p>RCC (2019-01-25)</p>	<p>Preliminary Position</p> <p>The RCC Administrations support necessary modifications to existing RR Article 5 footnotes and related WRC Resolutions as well as the development of the new Radio Regulations Article 5 footnotes and related WRC Resolutions to ensure the protection and the possibility of further development for existing services, including other applications of fixed service, having allocations in these and adjacent frequency bands, as well as to facilitate HAPS development (see Annex 1.4).</p> <p>The RCC Administrations consider that HAPS should not claim more protection from other stations of existing services than that provided in the Radio Regulations for the terrestrial stations in the fixed service, while not exceeding the interference level to stations of the existing services as the stations on the Earth’s surface in the fixed service do.</p>

Agenda Item 1.15 Land Mobile and Fixed Services Footnote Between 275-450 GHz

Agenda Item 1.15 Land Mobile and Fixed Services Footnote Between 275-450 GHz

<p>SFCG</p>	<p>SFCG supports the concept that no actual allocations will be made to any service above 275 GHz at WRC-19. However, SFCG supports the conclusions of the technical studies performed in ITU-R showing that a large amount of spectrum within the 275-450 GHz range could be identified for FS and MS applications, with the exception of the bands 296-306 GHz, 313-318 GHz and 333-356 GHz that, as a result of ITU-R compatibility studies, were deemed incompatible with the existing Earth exploration-satellite service (passive). Thus, SFCG does not oppose either Method D1 or E from the draft CPM text, as both provide identification of the frequency ranges for land-mobile and fixed service use that will not cause harmful interference to the passive services while maintaining the requirement for active users to take all practicable steps to protect passive applications.</p>
<p>APT (2019-01-12)</p>	<p>Preliminary Position</p> <p>APT Members support the ITU-R studies to consider identification of frequency bands for use by the land mobile and fixed service applications operating in the frequency range 275-450 GHz, taking into account the most recent work conducted by WP 5A and WP 5C on a version of Reports ITU-R M.2417 and F.2416, respectively, as well as the spectrum needs, provided that the protection of passive services identified in No. 5.565 is ensured. If such identification is made, APT Members support revising the existing footnote and/or adding a new footnote to the relevant part of the Radio Regulations.</p> <p>APT Members are also of the view that, in the bands identified for RAS in RR No. 5.565 (275-323 GHz, 327-371 GHz, 388-424 GHz and 426-442 GHz), separation distances and/or avoidance angles between RAS stations and FS stations should be considered depending on the deployment environment of FS stations.</p> <p>Other Views from APT Members:</p> <p>Some APT Members support possible identification of FS applications in all bands in the frequency range 275-450 GHz, except 296-306 GHz, 313-320 GHz and 330-356 GHz. Their view may change pending further studies in WP 1A.</p> <p>Some APT Members do not support the identification of 296-306 GHz, 313-320 GHz and 330-356 GHz for the FS applications because the current outcomes of sharing and compatibility studies in ITU-R WP 1A shows infeasibility between FS application and EESS (passive).</p> <p>Some APT Members support possible identification of LMS applications in the entire band in the frequency range 275-450 GHz. Their view may change pending further studies in WP 1A.</p> <p>Some APT Members do not support identification of LMS/FS applications in the frequency bands within the frequency range 275-450GHz if the result of sharing and compatibility studies between LMS/FS application and passive services identified in RR No.5.565 indicates that sharing is not feasible.</p> <p>Some APT Members support to the work conducted by WP 5A and WP 5C on a revision of Reports ITU-R M.2417 and F.2416, respectively.</p> <p>Some APT Members do not support the identification of 361-365 GHz to the FS/LMS at this stage. Their view may change pending further studies in WP 1A.</p> <p>Some APT Members are of the view that it is not necessary to propose the whole 94 GHz bandwidth of 356-450 GHz for identification for the FS/LMS applications, taking into account the spectrum needs summarized in ITU-R studies as contained in section 1/1.15/3 of the current version of draft CPM text.</p> <p>Some APT Members are of the view that the term “designated” is better replaced with the term “identified” in Methods as it has been used in the existing RR No. 5.565.</p>
<p>ASMG</p>	<p>Preliminary Position</p>

Agenda Item 1.15 Land Mobile and Fixed Services Footnote Between 275-450 GHz

(2018-07-23)	Support the current studies to consider identification of frequency bands for use by administrations for the land-mobile and fixed services applications operating in the frequency range 275-450 GHz, while ensuring the protection of passive services identified in No.5.565, and not adding any additional constraints on these services and the possibility to support the only method proposed to satisfy this Agenda Item.
ATU (2018-09-17)	<p>Make Method C as the African preliminary position which suggest modifying RR No 5.565 for use by Fixed service Land Mobile service applications in portions of the 275 – 450GHz band, while considering the evolving guidance of ITU-R Recommendations and Reports. Studies that evaluated the entire 275-450GHz range show that sharing is feasible between applications in the land mobile/fixed service, and applications in the Earth explorations satellite service (passive)/radio astronomy service in the particular frequency bands: 275 -296 GHz, 306 -313 GHz, 320 -330 GHz and 356 – 450GHz.</p> <p>Note that ECOWAS having reviewed the draft CPM report and the proceedings of the meetings of APM 19-3 reviewed its position to align with the ATU preliminary position of Method C.</p>
CEPT (2018-11-30)	<p>Preliminary Position</p> <p>CEPT supports the inclusion of a new footnote to Article 5 of the Radio Regulations identifying the following frequency bands for fixed and mobile service applications in the range 275-450 GHz while maintaining the protection of the passive services identified in No. 5.565:</p> <ul style="list-style-type: none"> • 275-296 GHz • 306-313 GHz • 318-333 GHz • 356-450 GHz <p>With a total bandwidth of 137 GHz, CEPT stresses that this is exceeding the assessed spectrum requirements of the land mobile and fixed services. In addition to the 23 GHz already allocated to land mobile and fixed services in the lower adjacent band 252-275 GHz, this is hence providing a contiguous band of 44 GHz.</p> <p>However, CEPT does not support land mobile and fixed services identification in the EESS (passive) bands 296-306 GHz, 313-318 GHz and 333-356 GHz (as identified in No 5.565) since study results show that they are not compatible.</p> <p>Active services other than land mobile and fixed services are not subject to WRC-19 Agenda item 1.15. Consequently, CEPT is of the view that the corresponding regulatory provisions to other active services have to remain unchanged.CEPT also supports access to the frequency range 275-450 GHz by other active services notwithstanding the continued protection of the passive services as determined in No. 5.565.</p>
CITEL (2019-04-12)	<p>Draft Inter-American Proposal</p> <p>The frequency band 275-450 GHz is identified for use for fixed and land mobile service applications:</p> <p>In the frequency bands 275-296 GHz, 306-313 GHz, 320-330 GHz and 356-450 GHz, no specific conditions are necessary by fixed and land mobile service applications to protect Earth exploration-satellite service (passive) applications.</p> <p>In the frequency bands 275-323 GHz, 327-371 GHz, 388-424 GHz and 426-442 GHz, depending on the case, it may be necessary to adopt specific conditions (such as minimum separation distances and/or avoidance angles) to ensure the protection of radio astronomy stations from fixed and land mobile service applications.</p>

Agenda Item 1.15 Land Mobile and Fixed Services Footnote Between 275-450 GHz

	<p>In the frequency bands 296-306 GHz, 313-320 GHz, 330-356 GHz, specific conditions are necessary (such as shielding) in order to ensure the protection of Earth exploration-satellite service (passive) applications from fixed and land mobile service applications.</p> <p>Reasons: The ITU-R studies on the compatibility of passive and active services have shown that, depending on the specific sub-band of the 275-450 GHz frequency range and combination of active/passive service application combination, coexistence can be achieved either without needing specific conditions or with the implementation of mitigation techniques such as minimum separation distances and avoidance angles. Adequate shielding has not been ruled out as an effective mitigation technique to protect EESS. ITU-R Recommendations and Reports on coexistence between active and passive service applications are expected to evolve over time to reflect technological developments.</p> <p>Draft Inter-American Proposal</p> <p>SUP Resolution 767 (WRC-15)</p> <p>Reasons: The studies can continue in ITU-R without the need for a WRC Resolution and the results published in ITU-R Recommendations and Reports.</p> <p>Draft Inter-American Proposal</p> <p>The following frequency ranges are identified for use by administrations for land-mobile and fixed service applications: 275-296 GHz, 306-313 GHz, 320-330 GHz and 356-450 GHz.</p> <p>NOC to footnote 5.565</p> <p>Reason: Taking in to account the ITU-R studies, which demonstrated that sharing was feasible in the above bands between LMS/FS active services and EESS (passive) and RAS, these specific ranges are identified for LMS/FS in the new footnote. Bands where studies have not demonstrated that sharing is feasible are not included in the footnote. Additionally, special attention is called to the RAS site operating in the identified ranges.</p> <p>Draft Inter-American Proposal</p> <p>SUP Resolution 767 (WRC-15).</p> <p>Reasons: Consequential action. Studies have been completed and frequency bands for FS/LMS applications have been identified.</p>
<p>RCC (2019-01-25)</p>	<p>Preliminary Position</p> <p>The RCC Administrations consider it reasonable that identification of frequency bands for land-mobile and fixed service applications in 275-450 GHz band in the RR No. 5.565 will facilitate global harmonization of radio frequencies for development and introduction of land mobile and fixed service applications above 275 GHz.</p> <p>The RCC Administrations consider that when identifying frequency bands for active services in 275-450 GHz range, a balance of interests has to be observed in the use of this frequency range by both active and passive services, ensuring possibility for future development of new active service applications while excluding interferences to the passive services in the frequency bands already identified in No. 5.565 of the Radio Regulations.</p> <p>The RCC Administrations support inclusion in the new RR footnote of the frequency bands 275–296 GHz, 306–313 GHz, 318–333 GHz and 356–450 GHz to be used by applications in the land mobile and fixed services and the related modifications to RR No. 5.565 .</p>

Agenda Item 1.16 RLANs Studies at 5150-5925 MHz

Agenda Item 1.16 RLANs Studies at 5150-5925 MHz

<p>SFCG</p>	<p>The primary SFCG frequency bands of interest under this agenda item are 5250-5350 MHz and 5350 -5470 MHz and SFCG has particular concerns with the identification of these bands due to the results of studies in WP 5A. SFCG members have been deeply involved in ITU-R studies related to the sharing studies between RLAN 5 GHz and EESS (active) in both the 5250-5350 MHz band and 5350-5470 MHz bands showing that a change of RLAN technical conditions in the first band and a new mobile service allocation for RLAN in the second band would not be compatible with all EESS(active) instrument types (altimeters, scatterometers and SAR).</p> <p>Therefore, SFCG supports no change to Radio Regulations, which is the single method currently identified in the draft CPM text for these two frequency bands, 5250-5350 MHz and 5350-5470 MHz.</p>
<p>APT (2019-01-12)</p>	<p>Preliminary Position</p> <ul style="list-style-type: none"> • APT members support studies being conducted in ITU-R in accordance with Resolution 239 (WRC-15). • APT members are of the view that the protection of incumbent services including their current and planned use in the frequency bands 5 150-5 350 MHz, 5 350-5 470 MHz, 5 725-5 850 MHz and 5 850-5 925 MHz should be ensured, without unacceptable constraints on these services. • In the frequency bands 5 250-5 350 MHz, 5 350-5 470 MHz and 5 850-5 925 MHz, APT Members support NOC to the Radio Regulations for the use of WAS/RLAN to protect incumbent services. • In the frequency band 5150-5250 MHz, APT Members are still investigating the possibility to enable outdoor WAS/RLANs operations while protecting the incumbent services, without unacceptable constraints on these services. • In the frequency band 5 725-5 850 MHz, APT Members support the worldwide use for mobile service taking into account RR No.5.453. <p>Other Views from APT Members:</p> <ul style="list-style-type: none"> • In the frequency band 5 150-5 250 MHz, some APT Members support no change (NOC) to the Radio Regulation for the use of WAS/RLAN to protect incumbent services. Some other APT Members support to enable outdoor WAS/RLANs operations with associated conditions to protect incumbent services and modify the Radio Regulations in this regard. • In the frequency band 5 725-5 850 MHz, some APT Members support NOC to the Radio Regulations for the use of WAS/RLAN to protect incumbent services.
<p>ASMG (2018-07-23)</p>	<p>Preliminary Position</p> <p>Follow-up studies of this agenda item for wireless access systems including radio local area networks (WAS / RLAN) ..</p> <p>Do not support the identification of new bands for (WAS / RLAN), unless the studies show possibility of coexistence with current services.</p> <p>Ensure protection of the existing services without adding any new restrictions on them.</p>

Agenda Item 1.16 RLANs Studies at 5150-5925 MHz

<p>ATU (2018-09-17)</p>	<p>Preliminary Position</p> <p>A.) For the band 5150-5250 MHz (Band A)</p> <ul style="list-style-type: none"> ○ Support Method A1 (NOC) or Method A3: consideration of this agenda in respect of the two Methods would continue at Sub-regional and WG2 level with a view to achieve consensus. ○ Note the view of Egypt that “Resolution 239 (WRC-15 invites to address the possibility of enabling outdoor WAS/RLAN operations incl possible associated conditions in the frequency band 5150-5350MHz. Therefore Egypt supports Method A3 to revise Resolution 239 (RevWRC-12) and enable outdoor RLAN operations by applying the same conditions of use as defined for the 5250-5350Mhz band in resolves 4 of Resolution 229 (Rev WRC-12) <p>B.) For the band 5250 -5350Mhz (Band B) Take Method B (No Change) as the African preliminary position.</p> <p>C.) For the band 5350-5850MHz Band C Take Method C (No Change) as the African preliminary position</p> <p>D.) For the band 5725-5850MHz (Band D)</p> <ul style="list-style-type: none"> ● Take Method D (No Change) as the African preliminary position while, continuing the consideration of Method D2 at sub-regional and WG2 levels. ● Note the view of Egypt that “Resolution 239 (WRC-15) invites to consider potential mobile service allocations to accommodate WAS/RLAN operations in 5725 – 5850MHz frequency band. Egypt supports Method D2 to allocate the 5725 – 5850MHz band to the mobile services on a primary basis worldwide in Region 1 with the associated conditions. Furthermore, Egypt and the 46 countries listed in RR No. 5.453 are already having primary allocation for MS in the considered band, the suggested method would benefit those administrations that are not part of the footnote and wish to operate WAS/RLAN under MS Primary allocation.” <p>E.) For the band 5850-5925 MHz (Band E) Take Method E1 (No Change) as the African preliminary position</p>
<p>CEPT (2018-11-30)</p>	<p>Preliminary Position</p> <p>In the 5 150-5 250 MHz band, CEPT notes that an outdoor relaxation to WAS/RLAN would affect the operation of the MSS feeder links, aeronautical radionavigation and aeronautical telemetry (see No 5.446C). However, CEPT is still studying usage restrictions (e.g. in vehicle use) combined with appropriate mitigation techniques to achieve co-existence with incumbent services to enable outdoor WAS/RLAN use in this band.</p>

Agenda Item 1.16 RLANs Studies at 5150-5925 MHz

In the 5 250-5 350 MHz band, CEPT notes that the current studies have shown difficulties in achieving co-existence with incumbent services and therefore supports no change to the RR in this band.

In the 5 350-5 470 MHz band, CEPT supports no change to the RR in this band.

In the 5 725-5 850 MHz band, CEPT would support a new mobile allocation to accommodate WAS/RLANs use if sharing and compatibility studies can demonstrate the effectiveness of any new proposed interference mitigation techniques to ensure the protection of radars, fixed service (see No **5.455**) and FSS space station receivers. It is to be noted that CEPT will take into account compatibility studies between RLAN and specific applications within CEPT (e.g. road tolling systems). At this time, no effective mitigation techniques has been proposed to enable co-existence with certain modes of frequency hopping radars operated in this band in some CEPT countries.

In the 5 850-5 925 MHz band, CEPT notes that the current studies have shown difficulties in achieving co-existence with other incumbent services without imposing any additional constraints on existing services such as FSS (space station receivers) and existing applications under the mobile service such as ITS (including urban rail). Therefore, CEPT supports no change to the RR in this band.

Accordingly, CEPT adopted European Common Proposals (ECP) for agenda item 1.16, proposing no change to the RR for the bands 5250-5350 MHz, 5350-5470 MHz and 5850-5925 MHz.

Agenda Item 1.16 RLANs Studies at 5150-5925 MHz

<p>CITEL (2019-04-12)</p>	<p>Preliminary Position</p> <p>No change to the Table of Frequency Allocations in the band 5 150-5 250 MHz as further study of currently available mitigation measures indicate that is difficult to find mitigation techniques to facilitate sharing between outdoor RLAN and Aeronautical Radionavigation (Aeronautical Mobile Telemetry).</p> <p>Preliminary Position</p> <p>The band 5 150-5 250 MHz is the only worldwide harmonized spectrum for RLANs in the 5 GHz range that is not subject to the dynamic frequency selection constraint. Some studies confirm that RLAN operations outdoors in the band 5 150-5 250 MHz will not cause harmful interference to other operations in the band. The results of these studies are further confirmed by the real-world operational experience with some countries allowing RLAN operations outdoors in the 5 150-5 250 MHz with appropriate constraints, e.g. maximum number of outdoor RLANs. Allowing RLAN access to outdoor use in the band 5 150-5 250 MHz with appropriate technical rules would address the growing demand for continuous and ubiquitous connectivity.</p> <p>Preliminary Position</p> <p>There is a footnote (5.453) with the additional attribution on a primary basis for the mobile service, so some countries have deployed applications using WAS/RLAN technologies operating at various power levels using various mitigation techniques for coexistence between services involved in this band. In other countries, the allocation to the mobile service on a secondary basis has been adopted</p> <p>Preliminary Position</p> <p>There is a footnote (5.453) with the additional attribution on a primary basis for the mobile service, so some countries have deployed applications using WAS/RLAN technologies operating at various power levels using various mitigation techniques for coexistence between services involved in this band.</p> <p>Draft Inter-American Proposal</p> <p>WAS/RLAN already operate in various countries throughout the world within the frequency band 5 725-5 850 MHz. In Region 2, the band 5 725-5 825 MHz is also used by WAS/RLAN.</p> <p>Inter-American Proposals</p> <p>The band 5 150-5 250 MHz is the only worldwide harmonized spectrum for RLANs in the 5 GHz range that is not subject to the dynamic frequency selection constraint. Studies confirm that RLAN operations outdoors in the band 5 150-5 250 MHz will not cause harmful interference to other operations in the band. The results of these studies are further confirmed by the real-world operational experience with some countries allowing RLAN operations outdoors in the 5 150-5 250 MHz with appropriate constraints. Allowing RLAN access to outdoor use in the band 5 150-5 250 MHz would address the growing demand for continuous and ubiquitous connectivity.</p> <p>Inter-American Proposal</p> <p>Since the adoption of Resolution 229 (Rev. WRC-12) at WRC-03, millions of WAS/RLAN (such as Wi-Fi) devices have been deployed in the band 5 250-5 350 MHz. Studies in response to invite</p>
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Agenda Item 1.16 RLANs Studies at 5150-5925 MHz

	<p>c of Resolution 239 (WRC-15) have shown that changing the WAS/RLAN operating conditions in the band 5 250-5 350 MHz would not ensure protection of incumbent radiodetermination services and EESS (active) sensors.</p> <p>Inter-American Proposals</p> <p>No change to the Table of Frequency Allocations in the band 5 350-5 470 MHz as further study of currently available mitigation measures indicate that there are no viable mitigation techniques to facilitate sharing between Radio Local Area Networks (RLAN) and the Earth Exploration Satellite Service (active) or radiolocation systems in the band 5 350-5 470 MHz.</p> <p>Inter-American Proposals</p> <p>WAS/RLAN already operate in various countries throughout the world within the frequency band 5 725-5 850 MHz. In Region 2, the band 5 725-5 825 MHz is also used by WAS/RLAN.</p> <p>Inter-American Proposals</p> <p>No change to the Table of Frequency Allocations in the 5- 850-5- 925 MHz frequency band, because the mobile service is co-primary and applications are already implemented in this segment.</p> <p>Inter-American Proposals</p> <p>No change to the Table of Frequency Allocations in the 5 850-5 925 MHz frequency band, because the mobile service is co-primary and applications are already implemented in this segment.</p>
<p>RCC (2019-01-25)</p>	<p>Preliminary Position</p> <p>The RCC Administrations are in favour of necessary protection from potential WAS/RLAN interference for all the services having allocations in the considered frequency bands, first of all for systems in radiolocation and aeronautical radionavigation services used for the safety of flights.</p> <p>The RCC Administrations oppose reduction of restrictions for the use of WAS/RLAN in the frequency bands 5 150-5 250 MHz and 5 250-5 350 MHz , since the conducted ITU-R studies did not reveal mitigation methods ensuring sharing between outdoor WAS/RLAN and the systems in existing services in the considered frequency bands.</p> <p>The RCC Administrations consider the possibility of WAS/RLAN systems operation in the frequency band 5150-5250 MHz inside vehicles provided they have compatibility with systems in existing services, achieved through limiting power of WAS/<u>RLAN</u> systems' transmitters and additional absorption by vehicle body.</p> <p>The RCC Administrations oppose the use of WAS/RLAN in the frequency bands 5 350–5 470 MHz, 5 725–5 850 MHz and 5 850–5 925 MHz, since the studies conducted by ITU-R , showed that sharing between WAS/RLAN and the systems in existing services in the considered frequency bands is not ensured.</p>

Agenda Item 7 Resolution 86 – Satellite Regulatory Procedures

Agenda Item 7 Resolution 86 – Satellite Regulatory Procedures

SFCG	<p>SFCG supports possible changes to the Radio Regulations to improve the handling of the advance publication, coordination, notification and recording procedures for satellite networks. SFCG shall monitor all the issues covered under this agenda item to ensure that any possible change will not adversely impact space science services.</p> <p>There are currently issues A through N under this Agenda Item. Issues B, C, E through G, I through L, and N do not concern the SFCG. So far SFCG has identified several issues of specific interest to space science services:</p> <p>Issue A: This issue involves development of a general definition of: 1) bringing into use (BIU) for NGSO systems and 2) the implementation of a milestone based deployment approach for specific services and bands.</p> <p>SFCG is of the opinion that the proposed changes should only be applicable to FSS or MSS non-GSO constellations or systems subject to coordination under Section II of Article 9, or to RR Article 22, supporting adoption of revisions that would not impose undue constraints in operation of satellites with science missions.</p> <p>Therefore, SFCG supports Option C of the draft CPM text (Working Party 4A Chairman Report Doc. 826, Annex 32) with respect to BIU and with respect to the milestone based deployment approach, SFCG supports Option 1 of the draft CPM text which limits the applicability of the milestone approach to only FSS and MSS systems. SFCG should oppose any changes in BIU which include a continuous deployment period for the space science services or inclusion of the space science services in the milestone based approach. Additionally under Issue A is the ideal of orbital tolerances for the inclination, apogee, perigee and argument of perigee. This should not be supported by the SFCG unless there is a clear understanding of how this will impact mission in the space science services which may not have the adequate propulsion resources to perform such station keeping and whose orbit will degrade over time.</p> <p>Issue D: SFCG does not oppose either Method D2 or D3 (Working Party 4A Chairman Report Doc. 826, Annex 33) of the draft CPM text. This issue relates to publication of a list of potentially affected networks at the time of coordination which may be useful for SFCG members.</p> <p>Under method D2, it is proposed to add the requirements to have:</p> <ul style="list-style-type: none">a) a pre-compiled list of potentially affected satellite networks and/or systems, published for information only, included in the CR/C Special Section for coordination under RR Nos. 9.12, 9.12A and 9.13, by stipulating it in RR No. 9.36.1;b) the definitive list of affected satellite networks or systems to be considered when effecting coordination under RR Nos. 9.12, 9.12A and 9.13 to be included in the CR/D Special Section by stipulating it in RR No. 9.53A. <p>Under method D3, it is proposed to add the requirements to have the list of satellite networks or systems potentially affected included in the CR/C Special Section for coordination under RR Nos. 9.12, 9.12A and 9.13 for information only, by stipulating it in RR No. 9.36.1.</p> <p>Issue H: This issue introduces additional orbital data in the NGSO API describing a non-GSO satellite when submitting an API and/or CR/C package, for sun synchronous satellites, as the orbital elements for such satellites are mission dependant and would be known at the API stage. This would allow the proper modelling of the orbit of new satellite network filings and may also be of use to SFCG members. SFCG supports the initiative which is the only Method in the draft CPM text.</p> <p>At the July meeting of WP 4A, several Administrations have proposed a new issue to address short-duration missions. SFCG does not support any simplification of the Radio Regulations that would</p>
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	<p>have a negative impact on the use of the bands such as the 2 GHz data links bands for EESS and SRS.</p> <p>Issue M: This issue involves a simplified regulatory regime for short duration missions, defined specifically as mission with less than [10] satellites with period of validity less than three years. SFCEG does not support modifying the procedures for filing satellites under RR Articles 9 and 11 unless sufficient safeguards are in place to ensure a simplified and/or expedited filing process cannot be exploited. Further issues such as cost recovery for such as process should also be considered.</p>
<p>APT (2019-01-12)</p>	<p>Preliminary Position</p> <p>APT Members support consideration of possible changes to improve advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks/systems on the basis that activity under this agenda item is not used to make changes to allocations in Article 5 of the Radio Regulations.</p> <p>APT Members are of the view that the general principle that satellite networks should be brought into use after conducting necessary frequency coordination should be maintained.</p> <p>Taking into account the heavy workload of WRC-19 and several complex Agenda Items to be dealt with on the one hand, and the need for careful consideration of issues brought to WRC-19 to be carefully examined by CPM19-2 on the other hand, APT Members are of the view that APT Member states are invited to not bring any new issues under Agenda Item 7 to WRC-19.</p> <p>Issue A - Non-GSO BIU:</p> <ul style="list-style-type: none"> • APT Members support a BIU requirement based on a milestone-based approach inclusive of a deployment factor for non-GSO systems, providing regulatory certainty to networks and recognition that constellations of non-GSO satellites may generally take time to be developed and to complete their deployment. On draft CPM report text on Issue A, APT Members have the following views: <p><u>BIU Period</u></p> <ul style="list-style-type: none"> • APT Members support a continuous period of at least 90 days for the FSS and MSS in a notified orbital plane of a satellite with the capability of transmitting or receiving the frequency assignments, in accordance with the current practice as contained in the Rules of Procedure on RR No. 11.44. <p><u>Milestone-based approach</u></p> <ul style="list-style-type: none"> • APT Members have the following preliminary views, in general: • A milestone-based approach for the maintenance of the recording in the MIFR of assignments to non-GSO systems should be associated with a minimum number of satellites to be deployed over time. • Recognizing that some constellations may deploy some satellites but may fail to meet the milestones, a provision is proposed to reduce the maximum number of satellites recorded in the MIFR while preserving the rights for the already in-orbit satellites. The reduction of the maximum number of satellites recorded in the MIFR should be based on the number of actual satellites deployed.

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- APT members support the adoption of new WRC Resolution for Fixed Satellite Service(FSS), Mobile Satellite Service(MSS) and Broadcasting Satellite Service (BSS)if required in frequency bands of 10.7-13.25 GHz, 13.75-14.5 GHz, 17.3-20.2 GHz, 27-30 GHz, 37.5-42.5 GHz, 47.2-50.2 GHz and 50.4-51.4 GHz. This Resolution shall identify the requirement for the implementations of each milestone of deployment (Time period, percentage of satellites deployed for each milestone) together with necessary measure(s) to be applied to the system which failed to meet the milestone approach.

Transitional Measure

- APT members are of the view that those systems brought into use and notified, but not fully deployed before a date to be set by the Conference, will have the same regulatory certainty as that available to those systems which will be brought into use and notified after this date. For those systems brought into use and notified, but not fully deployed before a date to be set by the Conference, appropriate transitional measures may need to be considered in order to allow administrations to have sufficient time to adapt their current development and deployment schedules to meet milestones, as appropriate. Reference to mile-stone based approach and transitional measures should be understood to be addressed irrespective of any method or option.

Applicability of tolerance concept for orbital characteristic values

- APT Members are of the view that a tolerance concept for Appendix 4 orbital data elements requires further studies.

Issue D – Identification of those specific satellite networks and systems with which coordination needs to be effected under RR Nos. 9.12, 9.12A and 9.13:

- APT Members do not Support Method D1(NOC).

Other Views from APT Members:

- Some APT Members Support Method D2, as the follows:

“Under this method, it is proposed to add the requirements to have:

- a pre-compiled list of potentially affected satellite networks and/or systems, published for information only, included in the CR/C Special Section for coordination under RR Nos. **9.12, 9.12A** and **9.13**, by stipulating it in RR No. **9.36.1**;
- the definitive list of affected satellite networks or systems to be considered when effecting coordination under RR Nos. **9.12, 9.12A** and **9.13** to be included in the CR/D Special Section by stipulating it in RR No. **9.53A**.

The list of potentially affected satellite networks/systems provided in the CR/C is for information only, and to also avoid a different status compared to the list of affected administrations. Under the current regulatory regime, the definitive list of administrations is provided in the CR/D. Under this method, it is proposed to also include the definitive list of satellite networks/systems in the CR/D.”

- Some other APT Members Support Method D3, as the follows:

“Under this method, it is proposed to add the requirements to have the list of satellite networks or systems potentially affected included in the CR/C Special Section for coordination under RR Nos. **9.12, 9.12A** and **9.13** for information only, by stipulating it in RR No. **9.36.1**. As opposed to Method D2, no further action will be required from the notifying administrations for the list of satellite networks/systems following the publication of the CR/C.”

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	<p>Issue H – Modifications to RR Appendix 4 items to be provided for non-geostationary satellite systems not subject to the procedures of Section II of RR Article 9:</p> <ul style="list-style-type: none"> • APT Members support the single method outlined in draft CPM text to address this issue. <p>Other Views from APT Members:</p> <ul style="list-style-type: none"> • With regard to the proposed modifications to RR Appendix 4 items under Issue H for sun-synchronous non-GSO satellite networks, it is desirable to add the option of adding the local sun time of descending node in addition to the current proposal of adding the local sun time of ascending node. <p>Issue M – Simplified regulatory regime for non-GSO satellite systems with short duration missions:</p> <ul style="list-style-type: none"> • APT members support a simplified regulatory regime for non-GSO satellite systems with short duration missions. APT members also support the principles of the draft new WRC Resolution in draft CPM text. • APT members are of the view that the simplified regulatory regime for non-GSO satellite systems with short-duration missions should not place additional burden on potentially affected administrations. • APT members support the retention of the typical 4 month commenting period from the date of BR IFIC containing information published under No. 9.2B. <p>Other Views from APT Members:</p> <ul style="list-style-type: none"> • Some other APT members are of the view that that the further development of the new Resolution is required to give flexibility in its applications and do not create unreasonable obligations for operators of existing satellite services.
<p>ASMG (2018-07-23)</p>	<p>Preliminary Position</p> <p>Issue A - Non-GSO BIU:</p> <p>ASMG Preliminary Position:</p> <ul style="list-style-type: none"> • Initial support for explicit provisions of the Radio Regulations regarding the status of non-geostationary systems along the lines of the regulatory status of geostationary systems. • Not to support first option, modification to 11.44 • Follow-up of the results of the studies of the options presented and the achievement of the following basic objectives: <ul style="list-style-type: none"> ○ Balancing the equitable access and spectrum efficiency with respect to radio spectrum and orbit resources. ○ Avoid any misuse for the filing procedures of NGSO networks ○ Follow up with BR regarding software tools may be required to query and ensure notification and BIU of NGSO consultation. <p>Issue B – Modification of recorded AP30/30A assignments:</p>

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ASMG Preliminary Position:

- Follow-up on ongoing studies.
- Initial support to apply coordination Arc between FSS and MSS and between MSS and MSS networks in the band 19.7-20.2 and 29.5-30 GHz, instead of DT/T (6%) approach.
- Continue the application of 9.41 with respect to networks exceeds DT/T 6%

Issue C – RR Article 11 and AP30/30A/30B discrepancies:

ASMG Preliminary Position:

- Initial support for single method proposed in draft CPM text

Issue D – Identification of coordination:

ASMG Preliminary Position:

- Follow-up studies under this issue.
- Initial support to method D2 in draft CPM text

Issue E - Harmonization of RR AP30B with AP30/30A:

ASMG Preliminary Position:

- Follow up studies and considering results of agenda item 7 Issue M

Issue F – Enhancement of AP30B:

ASMG Preliminary Position:

- Follow up studies and considering results of agenda item 7 Issue M

Issue G – Updating the AP30/30A reference situation:

ASMG Preliminary Position:

- Follow-up studies under this issue.
- Initial support Method A

Issue H – Modifications to RR Appendix 4 items to be provided for non-geostationary satellite systems not subject to the procedures of Section II of RR Article 9:

ASMG Preliminary Position:

- Support change Appendix 4 for NGSO information

Issue I – Additional RR Appendix 4 data items to be provided for non-geostationary satellite systems with multiple orbital planes

ASMG Preliminary Position:

- Support change Appendix 4 for NGSO information

Issue J – Modification of Section 1, Annex 1 of RR Appendix 30 pfd limit

ASMG Preliminary Position:

- Initial support for Method B
- Follow up studies with respect to cross border interference and guard bands

Issue K – Difficulties for Part B examinations under § 4.1.12 or 4.2.16 of RR Appendices 30 and 30A and 6.21 c) of RR Appendix 30B

ASMG Preliminary Position:

- Support Appendix 30B modification, according to ASMG submission.
- Follow up studies for the proposed Appendix30/30A modifications

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	<p>Issue L – Update to Appendix 4 data elements required for RR Article 22 EPFD verification after revision of Recommendation ITU-R S.1503</p> <p>ASMG Preliminary Position:</p> <ul style="list-style-type: none"> • Support updates to Appendix4 <p>Issue M – Resolution related to RR Appendix 30B</p> <p>ASMG Preliminary Position:</p> <ul style="list-style-type: none"> • Follow up studies • Study proposed resolution, considering pros and cons of its applications <p>Issue N – Measures to facilitate entering new assignments into the RR Appendix 30B List</p> <p>ASMG Preliminary Position:</p> <ul style="list-style-type: none"> • Follow up studies • Study proposed resolution, considering pros and cons of its applications • Support updates to Appendix 4
<p>ATU (2018-09-17)</p>	<p>Preliminary Position</p> <p>APM 19-3 agreed to:</p> <p>1. Note that the July 2018 meeting of Working party 4A made the following structural changes to its work:</p> <ul style="list-style-type: none"> • The suppression of <ul style="list-style-type: none"> ○ Issue E (Harmonization of RR App 30B with RR Appendix 30 & 30A) And ○ Issue F (Concerns with the lack of implementation of certain provisions of the RR and that can lead to difficulties during the entering of an assignment onto APP 30B list). • Creations of new issue E (Resolution related to RR Appendix 30B) • Renaming of Issue N as new Issue F. <p>2. Note the creation of new Issue M (Simplified regulatory regime for non-GSO satellite systems with short duration missions).</p> <p>Issue A</p> <p>Studies relating to the BIU of frequency assignments to non-GSO satellite systems, and consideration of a milestone based deployment approach for non-GSO FSS satellite systems in certain bands</p> <p>APM 19-3 agreed to:</p> <p>Take the Only Method, as the African preliminary position, proposed for BIU and milestone approach for deployment of Non-GSO systems:</p> <p>1. Regarding BIU, APM 19-3 may consider maintaining the current 90 days for Non –GSO satellite to be fully operational.</p> <p>2. ATU members are encouraged to further consider options proposed for milestone approach which will provide a balance between avoiding paper satellites and providing some flexibility to NGSAs operator for deployment of the system.</p>

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Issue B

Application of coordination arc in the Ka-band, to determine coordination requirements between the FSSS and other satellite services,

Take Method B2 as an African preliminary position the use of the coordination arc with a value of 8 degrees as the coordination criteria , to determine if coordination is required between FSS and MSS systems and between MSS systems in the frequency band 29.5 -30GHz (Earth-to-Space)

19.7-20.2 GHz (space-to-Earth), in all 3 Regions, replacing the existing coordination criteria $\Delta T/T > 6\%$

Issue C

Issues for which consensus was readily achieved in the ITU-R.

APM19-3 agreed to:

1. **Support, as a matter of an African preliminary position, the methods proposed** for each matter under this issue considering that the matters are non-contentious and consensus has already been achieved at the ITU-R WP4A on all matters on how best to resolve them.
2. **Note** that matters under this issue (i.e. Issue C) are non-contentious and consensus has already been achieved at the ITU-R WP4A on all matters on

Issue D

Identification of those specific satellite networks and systems with which coordination needs to be effected under RR Nos 9.12, 9.12A and 9.1.

APM19-3 agreed to:

Take Method D2 as the African preliminary position – to include the list of potentially affected networks in CR/C and in addition to give a room for potentially affected Administrations to include additional Satellite networks which might have been omitted in CR/C and publish them in CR/D.

Issue E

Resolution related to RR Appendix 30B

APM19-3 agreed to:

Take the Only Method, as the African preliminary position, which proposes the development of a new WRC Resolution to facilitate those Administrations who don't have a frequency assignment in the Appendix 30B and wish to provide an economically viable satellite service to its national territory as initially considered when the allotment Plan was established in 1988.

Issue F

Measures to facilitate entering new assignments into the RR Appendix 30B List

APM19-3 agreed to:

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Take Method F1 as the African preliminary position, which proposes to update the coordination, triggers to take into account technological advances and avoid some unnecessary coordination while assuring adequate protection of other satellite networks.

Issue G

Updating the reference situation for networks under RR Appendices 30 and 30A when Provisional recording is used.

APM19-3 agreed to:

1. **Take Method G1 as the African preliminary position**, which provides that when a network enters the List of Appendix 30 or 30A, the reference situation of the interfered with the network shall only be updated if-and-when the Bureau is informed that the agreement has been obtained. RR Provision 4.1.18 must be modified to reflect this view.

2. **Noted** that EACO is of the view that Method G2 is the appropriate method to address this agenda item.

Issue H

Modifications to RR Appendix 4 data elements to be provided for non- geostationary Satellite networks/systems

APM19-3 agreed to:

Take the Only Method, as the African preliminary position, proposed in WP 4A which provides additional items to include in RR Appendix 4 for APIs for frequency assignments to NGSO satellite systems in bands not subject to coordination under Section II of RR Article 9 for facilitating modelling of NGSO.

Issue I

Additional RR Appendix 4 data items to be provided for non- geostationary satellite systems with multiple orbital planes

APM19-3 agreed to:

Take the Only Method, as the African preliminary position, in WP 4A which proposes two additional items in RR Appendix 4 for the provision of information relating to the multiple orbital planes and their relationship with respect to the NGSO satellite system.

Issue J – pfd limit in Section 1, Annex 1 of RR Appendix 30

APM19-3 agreed to:

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Take Method J2as the African preliminary position, which proposes no change to the Radio Regulations since the pfd limit referred to in the first paragraph of Section 1 of Annex 1 to RR Appendix 30 is hard limit that shall not be exceeded in order to protect BSS assignments from interference that may be caused by BSS networks located outside an arc of $\square 9 \square$ around a wanted BSS network.

Issue K –

Difficulties for Part
B examinations
under § 4.1.12 or
4.2.16 of RR
Appendices 30 and
30A and § 6.21 c) of
RR Appendix 30B

APM19-3 agreed to:

Take the Only Method, as the African preliminary position, proposed which intends to make satellite coordination easier and to allow satellites networks opportunity of additional examination that have received unfavourable finding.

Issue L – Update to

Appendix 4 data
elements required
for RR Article 22
epfd verification
after revision of
Recommendation
ITU-R S.1503

APM19-3 agreed to:

Take the Only Method, as the African preliminary position, proposing changes to RR Appendix 4 which reflects the amendments on Recommendation ITU-R S.1503.

Issue M –

Simplified
regulatory regime
for non-GSO

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	<p>satellite systems with short-duration missions</p> <p>APM19-3 agreed to:</p> <p>Take adoption of the new WRC Resolution as the African preliminary position, together with an associated regulatory regime for non-GSO satellite systems with short duration missions as proposed in the draft CPM text.</p>
<p>CEPT (2018-11-30)</p>	<p>Preliminary Position</p> <p>CEPT is studying possible improvements of the coordination and notification procedures for space services. CEPT supports retaining the current process of continuing evolution at successive WRCs of the regime governing space services. CEPT intends to develop specific positions susceptible to bring improvement to the regulatory process.</p> <p>CEPT favours the review of any RR provision which can bring accurate solutions to specific detected inconsistencies and develop new improved provisions with emphasis on solving the most urgent issues, i.e. well characterized issues whose improvement is urgent and impacting.</p> <p>CEPT also favours a stable and predictable regulatory framework for efficient and economical use of spectrum and orbit resources.</p> <p>CEPT supports to include into consideration under WRC agenda item 7 only the issues considered by the relevant Working Parties prior to the deadline for the draft CPM Report and included into the draft CPM Report, in order to give administrations and regional organizations sufficient time to draw up a position and develop regulatory texts.</p> <p>See below for a detailed position on the individual issues relevant for SFCG: issues A, D, H and M.</p> <p>Issue A - Bringing into use of frequency assignments to all non-GSO satellite systems, and consideration of a milestone-based approach for the deployment of non-GSO satellite systems in specific bands and services:</p> <p>CEPT supports that a solution to address this issue should follow the principles established by ITU-R WP 4A (Annex 30 of 4A/826, Section 3/7/1.3).</p> <p>CEPT supports that the definition of the BIU of frequency assignments to non-GSO systems in accordance with the current practice as contained in then RoP adopted by the 73rd meeting of the RRB to be left unchanged from the current practice. This means that CEPT supports considering that the frequency assignments to a non-GSO system be brought into use with the deployment of one of its satellites in one of the notified orbital planes with the operational capability of transmitting or receiving those frequency assignments. Further consideration needs to be given on the most appropriate length of the period during which such satellite needs to operate in one of the notified orbital planes of the non-GSO system.</p> <p>At the same time, CEPT supports a milestone-based approach for the maintenance of the recording in the MIFR of assignments to non-GSO systems associated with a minimum number of satellites to be deployed over time. In assessing milestone timelines and objectives, CEPT will seek a balance between the need to prevent spectrum warehousing, the proper functioning of coordination mechanisms and the operational requirements related to the deployment of a non-GSO satellite system.</p>

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CEPT supports that any milestone-based approach should be applicable to FSS/BSS/MSS in at least the frequency bands 10.7-13.25, 13.75-14.5, 17.3-21.2, 27-31, 37.5-47, 47.2-50.2 and 50.4-51.4 GHz and is considering its applicability to other primary satellite services in the same direction and same frequency bands.

CEPT believes that the milestone-based proposal gives regulatory certainty to networks and systems and gives recognition that constellations of non-GSO satellites may generally take time to be fully deployed. CEPT supports the adoption of a unique method encompassing all types of constellations.

CEPT supports three milestones to be applied to networks recorded in the MIFR. Recognizing that some constellations may deploy some satellites but may fail to meet the milestones, a provision is proposed to reduce the number of satellites recorded in the MIFR while preserving the rights for the already in-orbit satellites. The reduction of the characteristics of the constellation recorded in the MIFR should be based on the number of actual satellites launched.

In the absence of a ITU-R recommendation dealing with calculation for interference as a result of modification, CEPT supports the non-application of No. 11,43B if modifications to notified orbital parameters, following milestone failure, are limited to the reduction of the number of orbital planes, reduction of the number of satellites per plane, modification of the right ascension of the ascending node of each plane and the modification of the initial phase angle of each satellite provided that notifying administration submit a commitment stating that the modified characteristics shall not cause more interference or require more protection than the initial notified characteristics.

CEPT supports that those systems brought into use and notified, but not fully deployed before a date to be set by the Conference, will have the same regulatory certainty as that available to those systems which will be brought into use and notified after this date. CEPT supports a methodology that would ensure that at one point in time after WRC-19, the recorded frequency assignments and their associated characteristics must reflect the actual deployment of such systems. Appropriate transitional measures are needed in order to allow administrations having systems brought into use and notified before a date to be set by the Conference to have sufficient time to adapt their current development and deployment schedules to meet milestones after an appropriate date after WRC-19.

CEPT supports that the suspension of frequency assignments does not extend the milestone period nor reduce the requirements associated with any of the remaining milestones.

CEPT will study further whether provisions should be developed so as to avoid that the same space station may be used to gain undue advantage in the deployment of the constellation by bringing into use multiple filings.

CEPT supports the adoption of a new Resolution by WRC-19 based on the principles and methodology set out above to address this issue.

Issue D - Identification of those specific satellite networks and systems with which Coordination needs to be effected under RR Nos 9.12, 9.12A and 9.13:

CEPT proposes that the Bureau publish in the CR/D special section the “definitive lists” of those specific GSO networks or non-GSO systems, as appropriate, with which coordination under Nos 9.12, 9.12A or 9.13 needs to be effected, similarly to what is currently done under the provisions of No 9.36.2, as outlined in Method D2 in the draft CPM text.

CEPT understands that, once the relevant software currently used by the Bureau will be amended as needed, such an approach would not significantly increase the daily workload of the Bureau for producing such lists. In fact, the Bureau carries out a similar analysis to produce the list of Administrations currently published in the BR IFIC under the provisions of No 9.36.1; the proposed changes would just modify the details published in the BR IFIC, together with simplifying the administrative burden currently born by many Administrations.

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Issue H - Modifications to RR Appendix 4 data elements to be provided for non-GSO satellite systems not subject to the procedures of Section II of RR Article 9: CEPT supports the only method proposed for agenda item 7 Issue H.

Issue M - Simplified regulatory regime for non-GSO satellite systems with short duration missions: CEPT supports the regulatory framework in the draft CPM text method where the short lifetimes of non-GSO space stations are taken into account. CEPT proposes to introduce this simplified regulatory regime for the advance publication, notification and recording procedures for non-GSO satellite systems with short duration missions not subject to Section II of RR Article 9 and in that respect supports the principles of the draft new WRC Resolution together with the associated regulatory regime.

This regulatory regime for non-GSO satellite systems with short duration missions not subject to Section II of RR Article 9 shall be based on the following principles:

- The satellite operator shall stop the emission of the space station in case of harmful interference experienced by current assignments such in line with RR No. 22.1;
- The API and the corresponding notification shall be accurate and complete regarding the orbital parameters and the number of carriers;
- The amount of time of 4 months for comments raised by administrations following a publication of an API shall not be changed;

The API associated to a limited number of small satellites (maximum of 10) shall be unique, shall not be duplicated or re-used; the maximum duration is 3 years, any extension is prohibited.

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<p>CITEL (2019-04-12)</p>	<p>Issue A Draft Inter-American Proposal</p> <p>Include in Article 11 provisions for addressing the bringing into use of all non-GSO systems, and to add “system” to align the wording of the first sentence with the rest of the provision.</p> <p>Add non-GSO systems to No. 11.44.2; the GSO period remains specified in No. 11.44B.</p> <p>Provide a fixed period for continuous deployment with the capability of transmitting/receiving frequency assignments to constitute BIU of frequency assignments to non-GSO systems. The start of the period [duration TBD] must be before the end of regulatory period.</p> <p>Create an exception to the general rule requiring deployment into a notified orbital plane for frequency assignments to non-GSO systems that do not specify the Earth as the reference body in Appendix 4. Here, due to the variety of potential systems, mostly of a scientific nature, there is no fixed period required for confirmation of BIU by the notifying administration.</p> <p>Add a new Resolution that contains and implements the milestone-based deployment approach for frequency assignments to certain FSS, BSS and MSS non-GSO systems in specific frequency bands.</p> <p>Issue B Draft Inter-American Proposal</p> <p>Modify Appendix 5 to the Radio Regulations based on the single method of the CPM report on WRC-19 agenda item 7, Issue B.</p> <p>Issue C4 Draft Inter-American Proposal</p> <p>Allow the submission of a single notice for both the entry in the Appendix 30 List in Regions 1, 2 and 3, and Notification</p> <p>Issue C5 Draft Inter-American Proposal</p> <p>Add instruction that the Bureau shall reflect the resubmission within 30 days of receipt on the ITU website, so as to implement the requirement for reminders during the six-month period and reduce the risk of a resubmission beyond the end 6-month period.</p> <p>Issue C7 Draft Inter-American Proposal</p> <p>Add an additional option to obtain a coordination agreement for a specific period, in order to facilitate the notification of frequency assignments, as well as harmonize the provisions of the Appendices 30, 30A and 30B of the RR.</p> <p>Issue D Draft Inter-American Proposal</p> <p>Revise 9.36.1 In the case of coordination under Nos. 9.12, 9.12A and 9.13, the Bureau shall</p>
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also identify the satellite networks or systems with which coordination may need to be effected. The list of administrations identified by the Bureau under Nos. **9.11** to **9.14** and **9.21**, and the list of satellite networks or systems identified by the Bureau under Nos. **9.12**, **9.12A** and **9.13** are only for information purposes, to help administrations comply with this procedure.

Revise 9.52C For coordination requests under Nos. **9.11** to **9.14** and **9.21**, an administration not responding under No. **9.52** within the same four-month period shall be regarded as unaffected and, in the cases of Nos. **9.11** to **9.14**, the provisions of Nos. **9.48** and **9.49** shall apply. Furthermore, for coordination under Nos. **9.12**, **9.12A** and **9.13**, any satellite networks or systems identified under No. **9.36.1** but not confirmed in the response provided by the administration under No. **9.52** within the same four-month period shall be regarded as unaffected and the provisions of Nos. **9.48** and **9.49** shall also apply.

Reasons: *This modification is required in order to have the list of potentially affected satellite networks or systems published in addition to the list of administrations.*

Issue E

Draft Inter-American Proposal

Agree with the method proposed by the ITU-R because the Resolution that is being proposed would be applicable to Regions 1, 2, and 3. In addition, the proposed method would address the issue that the procedure would only be used once by an administration and would be confined to the national service and coverage area; the request would be examined with a priority date; and relaxed coordination would apply to certain network categories, aimed at avoiding unnecessary coordination. In addition, a reduced coordination arc with the same values as those adopted by WRC-15 for the non-planned bands is included as part of the proposed solution to further alleviate the coordination burden for submissions made under the Resolution.

Issue F

Preliminary Proposal

Provide updated protection criteria in the frequency bands of Appendix 30B of the RR that avoid unnecessary coordination, and at the same time protect existing adjudications, which would reduce the burden on administrations and facilitate the treatment of the Radiocommunication Bureau for the conversion of allotments to assignments under the aforementioned Appendix.

Preliminary Proposal

Modify the coordination trigger in Annex 4 of RR Appendix **30B** to protect existing allotments and systems while facilitating modified allotments and new entries.

Issue G

Draft Inter-American Proposal

Given that WRC-19 Agenda Item 7, Issue G is a Regions' 1 and 3 only issue, no change is proposed for Region 2. Furthermore, any changes made to the Radio Regulations under WRC-19 agenda item 7 Issue G must not impact the Region 2 Plan in Appendix 30.

Issue H

Draft Inter-American Proposal

Modifies RR Appendix 4 to allow Administrations to have enough information to identify potential interference scenarios, taking into account the flexibility that may be required for non-

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	<p>GSO satellites with short duration missions and satellites for scientific or experimental purposes. Also, with information related to several orbital planes and their relationship with respect to the non-GSO system; and to align Appendix 4 with the most recent revision of Recommendation UTR-S.1503</p> <p>Issue I</p> <p>Draft Inter-American Proposal</p> <p>Add notes to reduce the period between the date of publication of the advance publication information (API) and the earliest possible date of receipt for notification information and the period between the receipt of the API and its actual publication in the BR IFIC.</p> <p>Issue J</p> <p>In order to protect the services offered in Region 2, changes that are made only in Regions 1 and 3 should not modify the procedural conditions for Region 2 within the framework of the matter. Therefore, it is proposed not to implement any change (NOC) that could affect the procedures in Region 2.</p> <p>Issue K</p> <p>Draft Inter-American Proposal</p> <p>Adds one more examination under § 4.1.12 of RR Appendix 30 such that should any remaining affected networks whose assignments have been entered in the List before the submission under § 4.1.12 of RR Appendix 30, the Bureau shall further examine if the remaining corresponding assignments in the List are still considered as being affected. The network being examined will not be subject to any new requirements beyond those specified in its Part A publication.</p>
<p>RCC (2017-05-16)</p>	<p>Preliminary Position</p> <p>The RCC Administrations consider it necessary further improvements in the notification, coordination and recording procedures for frequency assignments to satellite networks in different services in order to ensure equitable access of ITU Member States to orbital and frequency resource.</p> <p><i>Issue A – Bringing into use of frequency assignments to all non-GSO systems, and consideration of a milestone-based approach for the deployment of non-GSO systems in specific frequency bands and services.</i></p> <p align="center">Bringing into use</p> <p>With regard to bringing into use of non-GSO systems, the RCC Administrations support that frequency assignment to space station of non-GSO satellite systems shall be considered as having been brought into use, when notifying administration informed the Bureau that at least one space station with the confirmed capability of transmitting or receiving, has been deployed on one of the notified orbital planes of the non-GSO satellite system, irrespective of the notified number of orbital planes and satellites per orbital plane in the system. The RCC Administrations do not support identification in the Radio Regulations a continuous period of 90 or less days of deployment of a satellite, when bringing into use frequency assignments to non-GSO system.</p> <p>Orbital tolerance elements shall take into account different types of orbits for non-GSO-systems and application of these systems.</p> <p>The procedure of the milestone-based deployment approach</p>

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With regard to milestone-based approach to the deployment of multi-satellite non-GSO system, the RCC Administrations support adoption of new WRC-19 Resolution for fixed-satellite service (FSS) and mobile-satellite service (MSS) only in specific frequency bands (Ku-, Ka-, Q/V-bands). This Resolution shall identify the requirements for the implementation of each milestone of deployment (time period and percentage of the satellites deployed for each milestone) and restrictive measures applied to systems failed to meet the milestone (appropriate reduction in number of system satellites notified in the MIFR).

The RCC Administrations consider that time period and per cent of satellites deployed for each milestone of the system deployment and duration of the transition period shall ensure the balance between the capability to implement the non-GSO satellite system and effective use of the orbital and frequency resources, in order to prevent spectrum reservation by multi-satellite systems, which do not have real capability to implement the satellite grouping with notified characteristics.

RCC Administrations consider that the procedure for the the milestone-based approach of deployment shall not be applied to frequency assignments to non-GSO satellite systems/networks used for safety of human life.

Issue B - Application of coordination arc in the Ka-band, to determine coordination requirements between the FSS and other satellite services

The RCC Administrations support introducing the coordination arc mechanism in Ka-band to identify the need in the coordination between MSS and FSS geostationary satellite networks, as well as between MSS geostationary satellite networks, while maintaining the possibility of applying RR No. 9.41 (Method B2).

Issue C – Issues for which consensus was achieved in ITU-R and a single method has been identified

Issue C1 - Discrepancy and/or inconsistency between the regulatory provisions dealing with any changes to the characteristics of an assignment.

The RCC Administrations consider that the existing discrepancy between provisions of Articles in RR Appendices 30, 30A and 30B and the terminology of RR Article 11 provisions do not lead to complications when applying the relevant provisions of the Radio Regulations.

Issue C2 – Using a part of the Appendix 30B frequency band.

The RCC Administrations support the proposal on possible notification of frequency assignments blocks with bandwidth of 250 MHz each for additional systems in Ku-band within Appendix 30B.

Agenda Item 9.1.1 Implementation of IMT at 1885-2025 MHz and 2110-2200 MHz

Agenda Item 9.1.1 Implementation of IMT at 1885-2025 MHz and 2110-2200 MHz

SFCG	<p>SFCG should continue to monitor the developments of this issue in WPs 4C and 5D for any potential outcomes that could degrade the use of the 2200-2290 MHz and 2025-2110 MHz bands by the space science services. It is to be noted that unwanted emissions by SRS/EESS/SOS (Earth-to-space) may in turn interfere with terrestrial IMT and satellite-based IMT (MSS) in the 1885-2025 MHz band.</p>
APT (2019-01-12)	<p>Preliminary Position</p> <p>APT Members support conducting ITU-R studies on possible technical and operational measures to ensure coexistence and compatibility between the terrestrial component of IMT (in the mobile service) and the satellite component of IMT (in the mobile service and the mobile-satellite service) in the frequency bands 1 980–2 010 MHz and 2 170–2 200 MHz in different countries, in accordance with Resolution 212 (Rev.WRC-15).</p> <p>Other Views from APT Members:</p> <p>Some APT members have a view that since the Radio Regulations did not establish priority neither between terrestrial and satellite components of IMT, nor between mobile and mobile-satellite services in the bands 1 980–2 010 MHz/2 170–2 200 MHz, the present flexibility of Administrations for deployments of either terrestrial or satellite components of IMT need to be retained and any outcome of this Issue should not result in any changes to the Radio Regulations at WRC-19. Potential interference for all four possible scenarios between these services could be managed by bilateral/multilateral negotiation where administrations can bilaterally/multilaterally determine the appropriate mitigation techniques on a case-by-case basis.</p> <p>Some APT members have a view that in conduction of ITU-R studies, actual and realistic system characteristics/conditions need to be taken into account rather than the worst-case characteristics/conditions only, and no further regulatory studies or actions on either service based on worst-case scenario are required within ITU-R.</p> <p>Some APT members have a view that the proposed interference mitigation techniques in draft CPM text and recommendation or report for space component IMT, should be feasible due to the current technological advancement.</p> <p>Some APT members have a view that the final result of ITU-R study on this issue should provide practical protection criteria for the receivers of IMT UE and IMT MTC.</p> <p>Some APT members have a view that interference mitigation measures may be required to ensure that the operation of one service in any particular country should not constrain the operation of the other service in other countries. Some APT members will consider the possible need for revisions to the Radio Regulations to ensure coexistence of independent satellite and terrestrial IMT components in the frequency bands 1 980–2 010 MHz and 2 170–2 200 MHz.</p> <p>Some APT members are of the view that the protection of terrestrial IMT operating in the frequency band 1 980–2 010 MHz and 2 170–2 200 MHz is required.</p> <p>Some APT members are of view that the compatibility between stations in IMT terrestrial component (in mobile service) and IMT satellite component (in mobile-satellite service) is still under study within the ITU-R and may be ensured by the following measures, subject to the outcome of studies in appropriate manner:</p> <ul style="list-style-type: none"> • Conducting proper frequency arrangements in the band 1 980–2 010 MHz; <p>Applying current coordination procedure specified in the provisions of RR Article 9 and in the future where appropriate introduce appropriate modifications to the RR Appendices 5 and 7, subject to the outcome of studies in the WRC-19 study-cycle to identify coordination thresholds in the frequency bands under consideration.</p>

Agenda Item 9.1.1 Implementation of IMT at 1885-2025 MHz and 2110-2200 MHz

<p>ASMG (2018-07-23)</p>	<p>Preliminary Position</p> <p>Follow up the studies on this issue in the ITU Radio Sector Working Groups and support technical, operational and procedural measures for IMT systems to ensure compatibility between the terrestrial and satellite components of IMT systems in the frequency bands 1980-2010 MHz and 2170-2200 MHz.</p> <p>Preference for using the terrestrial component of IMT in these bands.</p>
<p>ATU (2018-09-17)</p>	<p>Preliminary Position</p> <p>Invite ATU administrations and sub-regions to continue with consideration of this issue with a view to secure technical, operational and regulatory measures that ensure compatibility between the terrestrial and satellite components of IMT systems in the frequency bands 1885-2025 MHz and 2110-2200 MHz. In this instance, Administrations and sub-regions were invited to refer to the Draft CPM Text for details of studies conducted by the ITU-R with respect to this issue.</p> <p>Task WG1 to continue considering the issue and develop a recommendation to APM19-4.</p> <p>Pledge that ATU would work towards a harmonized position regarding use of the band.</p>
<p>CEPT (2018-11-30)</p>	<p>Preliminary Position</p> <p>CEPT supports adequate measures to ensure the compatibility and co-existence of the satellite and terrestrial components of IMT, taking into account that the bands 1980-2010 MHz and 2170-2200 MHz are prioritised for MSS (mobile satellite service) use in CEPT (see Decisions ECC/DEC/(06)09, ECC/DEC/(06)10, and European Commission Decision 2007/98/EC) while MSS and MS (mobile service) have co-primary status in the RR.</p> <p>CEPT is of the view that protection of the MSS uplinks in CEPT countries (Interference scenario A1) is not ensured by the current Radio Regulations (RR). There is currently no provision in the RR that would prevent interference from IMT base stations to IMT space stations and there is no coordination process between the administration responsible for MS and the administration responsible for MSS and no process to identify the concerned administrations. Therefore potential revisions to the RR should be developed at least for Region 1 and 3:</p> <ul style="list-style-type: none"> • to ensure that the band 1980-2010 MHz is not used for IMT base station transmitters or • limiting the e.i.r.p. of IMT base stations in the uplink band (1980-2010 MHz) <p>CEPT is of the view that potential interference between the terrestrial IMT systems and MSS earth stations and vice versa (Interference scenarios A2 and B1) can be managed by cross-border coordination provisions in the RR Appendix 7 and there is no requirement for additional regulatory measures.</p> <p>CEPT is of the view that the protection of the terrestrial component of IMT (Interference scenario B2) could be achieved by using the current space station pfd thresholds contained in Table 5-2 of Appendix 5 RR, and by removing Note 3 of this table CEPT is studying a revision</p>

Agenda Item 9.1.1 Implementation of IMT at 1885-2025 MHz and 2110-2200 MHz

	<p>of the threshold value, , in order to avoid the need of unnecessary coordination by MSS systems with respect to countries which operate terrestrial IMT systems.</p>
<p>CITEL (2019-04-12)</p>	<p>Inter-American Proposal</p> <p>NOC to Radio Regulations Volumes 1 and 2</p> <p>Reasons: A change to the Radio Regulations would limit the flexibility for deployments by individual countries and therefore it is not necessary to make changes in volumes 1 and 2 of the Radio Regulations.</p> <p>MOD Resolution 212 to reflect that the studies responsive to this agenda item will be complete by WRC-19 and will document technical and operational measures to promote compatibility between the terrestrial and satellite components of IMT in different countries.</p>
<p>RCC (2019-01-25)</p>	<p>Preliminary Position</p> <p>To facilitate compatibility between IMT terrestrial component (in mobile service) and IMT satellite component (in mobile-satellite service) in the frequency bands 1 980-2 010 MHz and 2 170-2 200 MHz, the RCC Administrations support adoption of relevant ITU-R Recommendations and Reports and also relevant RR provisions facilitating such compatibility.</p> <p>The RCC Administrations are of view that compatibility between IMT terrestrial component (in mobile service) and IMT satellite component (in mobile-satellite service) may be achieved through application of existing provisions of RR Article 9 and introduction of appropriate modifications to RR Appendices 5 and 70 to identify coordination thresholds between stations in mobile and mobile-satellite services in the frequency bands under consideration.</p> <p>The RCC Administrations support adoption of relevant modifications of RR Appendices 5 and 7, based on the materials of Report ITU-R M.2292.</p>

Agenda Item 9.1.4 Stations Onboard Sub-Orbital Vehicles

Agenda Item 9.1.4 Stations Onboard Sub-Orbital Vehicles

<p>SFCG</p>	<p>SFCG members will continue to monitor the developments of this issue in WP 5B for any spectrum requirements identified that could impact space science service operations.</p> <p>It is important that any regulatory changes associated with this agenda item will not adversely impact the operation of launch vehicles or sounding rockets. Launch vehicle operations during the first minutes of low orbit must not be limited beyond the current regulations.</p>
<p>APT (2019-01-12)</p>	<p>Preliminary Position</p> <p>APT Members are of the view that no changes to the Radio Regulations (RR) are required at WRC-19</p> <p>APT Members support the on going ITU-R studies in accordance with Resolution 763 (WRC-15)</p>
<p>ASMG (2018-07-23)</p>	<p>Preliminary Position</p> <p>ASMG Position:</p> <ul style="list-style-type: none"> • Support following-up on-going studies in ITU-R.
<p>ATU (2018-09-17)</p>	<p>Preliminary Position</p> <p>Take No Change, as the African preliminary position, to the Radio Regulations at WRC-19 and consider this matter as a possible agenda item for WRC-23.</p> <p>Note that EACO supports the conclusion of No Change to the RR is proposed for WRC-19 cycle. Further operational, technical and regulatory issues may need to be addressed which require continuing studies, in particular of the status of the stations aboard sub-orbital vehicles and type of applications through the appropriate mechanism;</p> <p>Note that ITU-R is studying the impact of the future deployments of sub-orbital vehicles on radiocommunications regulations and some aspects would require further operational, technical and regulatory issues may need to be addressed, which require continuing studies, in particular of the status of the station aboard suborbital vehicles and type of applications, through the appropriate mechanism;</p> <p>Support the ongoing studies and encourage active participation in order to positively influence the outcomes of the studies.</p>
<p>CEPT (2018-11-30)</p>	<p>Preliminary Position</p> <p>CEPT recognizes that:</p> <ul style="list-style-type: none"> • the delimitation between atmosphere and outer space has not been legally defined at an international level by the competent organisations;

Agenda Item 9.1.4 Stations Onboard Sub-Orbital Vehicles

	<ul style="list-style-type: none"> • the definitions of status of the stations for suborbital flights for radiocommunication purpose by ITU-R do not prevent the competent international organisations (ICAO, UNOOSA) to potentially propose in the future, relevant definitions or other orientations concerning the kind of law (Air law, Space law, Sui generis) which could be applicable for the various types of suborbital systems concepts and projects.] • the current satellite/space launch systems including re-usable part are already operated under the Radio Regulation <p>CEPT is of the view that:</p> <ul style="list-style-type: none"> • no change to the Radio Regulations is required for WRC-19; • • suborbital vehicles need to be differentiated from current satellite/space launch vehicles; • suborbital vehicles need to be split in two different categories: <ul style="list-style-type: none"> ○ first category with trajectory and/or speed allowing continuous direct communication with ground during all the suborbital flight phase, then the stations fitted on board are considered as terrestrial stations or earth stations; • second category with trajectory and/or speed implying a reentry in the atmosphere avoiding direct communication to the ground (communication black out), then stations fitted on board are considered as space stations during the suborbital flight phase;
<p>CITEL (2019-04-12)</p>	<p>Inter-American Proposal</p> <p>SUP Resolution 763 because the studies conducted in the ITU-R study groups on this issue have been concluded; therefore, Resolution 763 is no longer necessary.</p>
<p>RCC (2019-01-25)</p>	<p>Preliminary Position</p> <p>The RCC Administrations consider that stations ensuring sub-orbital flights shall be operated within the frameworks of existing radio services and these stations shall be subject to regulatory, technical and procedural provisions currently in force for these radio services.</p> <p>The RCC Administrations consider that any modifications to the Radio Regulations provisions related to regulation of using stations on board sub-orbital vehicles at this stage are not necessary. The RCC Administrations also consider it necessary to develop additional technical and operational measures which would help to avoid harmful interference to radiocommunication services from stations ensuring sub-orbital flights when existing measures will be insufficient. The developed technical and operational measures shall be specified in the new ITU-R Recommendation and shall not impose additional constraints on the operation of stations used during spacecraft launch and delivery in orbit.</p>

Agenda Item 9.1.6 Urgent Studies for Wireless Power Transfer (WPT) for Electric Vehicles

Agenda Item 9.1.6 Urgent Studies for Wireless Power Transfer (WPT) for Electric Vehicles

<p>SFCG</p>	<p>While past work on the topic of WPT for electric vehicles has focused on bands below 400 kHz, and in the 6 765-6 795 kHz band, Resolution 958 (WRC-15) does not limit the studies to those bands. SFCG should continue to monitor the developments of this issue for any spectrum requirements identified that could impact space science services operations.</p>
<p>APT (2019-01-12)</p>	<p>Preliminary Position</p> <ul style="list-style-type: none"> • APT Members support the studies carried out by ITU-R in accordance with Resolution 958 (WRC-15) to assess the impacts of WPT-EV on radiocommunication services and to study suitable harmonized frequency ranges which would minimize the impact on radiocommunication services from WPT-EV. • APT Members are of the view that all radiocommunication services must be adequately protected from harmful interference that may be generated by WPT-EV, both at the fundamental frequency and from spurious and out-of-band emissions. • APT Members support consideration of the inclusion of one or more frequency ranges for WPT-EV in an ITU-R Recommendation based on completion of ITU-R studies. • APT Members supports further ITU-R studies related to WPT-EV to develop methodology and guidance to administrations in the following aspects: <ul style="list-style-type: none"> ○ one or more appropriate frequency ranges for WPT-EV are specified in a revision of Recommendation ITU-R SM.2110-0; ○ limits on unwanted radiation, including harmonics, are expected to be specified in a new ITU-R Recommendation; and ○ results of related studies and examples of existing national implementations throughout the Regions are provided in Report ITU-R SM.2303-2 and WDPDN Report ITU-R SM.[WPT_EV_IMPACT] and are expected to be provided in one or more ITU-R Reports on regulatory matters of WPT. • Consequently, APT Members are of the view that there is no need for activity related to WRC-19 to amend the RR. • APT Members support that ITU-R studies for WPT-EV should be continued after WRC-19, and APT Members are encouraged to consider necessary proposals depending on upcoming progress of ITU-R studies • APT Members are of the view that ITU-R will need to continue to closely collaborate with SDOs to ensure that appropriate frequency ranges and technical limits are incorporated into standards to protect radiocommunication services. <p>Other Views from APT Members:</p> <ul style="list-style-type: none"> • Some APT Members support a frequency range 79-90 kHz as a globally or regionally harmonized frequency range for WPT-EV. • Some APT Members are of the view that a Recommendation on frequency ranges for WPT-EV should be approved at the latest at RA-19.
<p>ASMG (2018-07-23)</p>	<p>Preliminary Position</p> <p>Follow up and support the current studies to assess the impact of (WPT) for electric vehicles on radiocommunication services; and to study suitable harmonized frequency ranges which would minimize the impact on radiocommunication services from (WPT) for electrical vehicles.</p> <p>Ensure the protection of the incumbent services and not add any additional constraints on these services.</p> <p>Emphasize the importance of universally harmonized frequency bands to achieve a global standardization.</p>

Agenda Item 9.1.6 Urgent Studies for Wireless Power Transfer (WPT) for Electric Vehicles

<p>ATU (2018-09-17)</p>	<p>Preliminary Position</p> <p>APM19-3 agreed to</p> <ol style="list-style-type: none"> 1. Support the ongoing sharing and compatibility studies between Wireless Power Transfer (WPT) systems and existing services. 2. Note that ongoing studies related to the impact of WPT for EV are considering the following frequency bands <ul style="list-style-type: none"> ○ 19-25kHz ○ 55-65kHz ○ 79-90kHz ○ 81.38-90kHz 3. Note that the 85kHz band is the preferred band with high probability of harmonization and is the least likely to cause interference to other services. 4. Note that WPT systems have the capability to interfere with the broadcasting service applications in the range 148.5-283.5kHz under the GE75 Broadcasting plan. 5. Urge administrations to contribute to and actively participate in the on-going studies to ensure that existing services are protected from spurious and out-of-band emissions from WPT applications, and to positively influence the outcome of the studies. 6. Note the ICAO, EBU and IARU concerns regarding the potential interference to existing radio services by WPT-EV unwanted emissions. 7. Note that WP 1B Report ITU-R SM.2303 contains the potential impact/effects of radiation from WPT systems and invited administrations to consider the information. 8. Invite administrations to study the draft CPM19-2 txt which concludes that WPT-EV operating on 55-65kHz will cause harmful interference to SFTS operating to 60kHz. Due to this it may be possible to define two separate frequency ranges below and above 60kHz to create an exclusion within the 55-65kHz range to mitigate the impact.
<p>CEPT (2018-11-30)</p>	<p>Preliminary Position</p> <p>CEPT is of the view that no regulatory action to the RR will be required in order to resolve AI 9.1, issue 9.1.6. ITU-R Report SM.[WPT.SPEC.MNGM] and Recommendations ITU-R SM.2110 and ITU-R SM.[WPT-UNWANTED], are considered sufficient to specify suitable frequency bands and limits on unwanted emissions for WPT-EV, along with determination of the related centre frequencies.</p> <p>CEPT has identified the following candidate bands as suitable for WPT-EV, which can minimise the impact of WPT-EV on radiocommunication services:</p> <ul style="list-style-type: none"> • 19-21 kHz for the highest power category (specific heavy-duty electric vehicles), and • 79-90 kHz for the medium power category (all types of electric vehicles). <p>In addition CEPT is of the view that no bands above 90 kHz should be considered for use by WPT-EV.</p> <p>CEPT is of the view that bands at 60 kHz and 77.5 kHz used by applications of the standard frequency and time signal service are not suitable for WPT-EV and require specific protection.</p>
<p>CITEL (2019-04-12)</p>	<p>Inter-American Proposal</p> <p><u>NOC</u> RR volumes 1 and 2</p> <p>Reasons: The existing regulatory framework in Nos. 15.12, 15.12.1, 15.13, 15.13.1, and regional and national administration's requirements, guided by applicable ITU-R Recommendations, can be applied for WPT-EV. Therefore, no changes are necessary to the Radio Regulations. It is</p>

Agenda Item 9.1.6 Urgent Studies for Wireless Power Transfer (WPT) for Electric Vehicles

	<p>necessary that the studies on the wireless power transmission for electric vehicles must ensure the protection of the existing, planned, and future radiocommunication services against harmful interferences, including unwanted emissions and harmonics, important conditions to be satisfied by developing applicable ITU-R Recommendations and Reports.</p> <p>SUP Resolution 958 (WRC-15)</p>
<p>RCC (2019-01-25)</p>	<p>Preliminary Position</p> <p>The RCC Administrations consider that any modifications to the Radio Regulations provisions related to regulation of using wireless power transmission devices are not necessary. The RCC Administrations are in favour of harmonizing frequency bands to be used for Wireless Power Transmission (WPT) for electric vehicles, which could be implemented by the development of relevant Recommendation ITU-R.</p> <p>The RCC Administrations support the development of conditions for use of the frequency band 79-90 kHz by WPT devices, which would provide protection to stations of radiocommunication services from possible interference, and which have relevant allocations in the Radio Regulations on a primary or secondary basis.</p>

Agenda Item 9.1.8 Urgent Studies for Machine Type Communications (MTC)

Agenda Item 9.1.8 Urgent Studies for Machine Type Communications (MTC)

SFCG	SFCG should continue to monitor the developments of this issue in WP 5D for any spectrum requirements identified that could impact space science services operations and supports the position that no need for changes to the Radio Regulations are required. Although no specific frequency ranges are identified to exclusively provide for the enhanced services, these services may be considered to be within the definition of IMT-2020 and, as such, add to the total amount of spectrum sought under AI 1.13.
APT (2019-01-12)	<p>Preliminary Position</p> <p>APT Members support results of ITU-R studies on the technical and operational aspects of radio networks and systems, as well as spectrum needed, including possible harmonized use of spectrum to support the implementation of narrowband and broadband machine-type communication infrastructures, in accordance with Resolution 958 (WRC-15) contained in draft CPM report for Agenda Item 9.1 issue 9.1.8.</p> <p>APT Members are of the view that the possible harmonized use of spectrum to support narrowband and broadband machine-type communication applications can be achieved through ITU-R Recommendations/Reports and there is no need to make any changes to the Radio Regulations nor any identification of spectrum to support narrowband and broadband machine-type communication applications in the Radio Regulations, consistent with the current Draft CPM Report conclusion.</p>
ASMG (2018-07-23)	<p>Preliminary Position</p> <p>ASMG Position:</p> <ul style="list-style-type: none"> • For Broadband MTC and IoT applications: Support the use of existing bands identified for (IMT) systems to support the implementation of broadband communications infrastructure from machine to machine and (IoT) • For Narrowband MTC and IoT applications: Support the possibility of: <ul style="list-style-type: none"> ○ Using existing bands identified for (IMT) systems, such as (694 –960 MHz) ○ Harmonized use of 2x3 MHz (733-736 / 788-791 MHz) in the 700 MHz band for narrowband MTC/IoT in interested countries. ○ Use of IMT bands for other applications
ATU (2018-09-17)	<p>Preliminary Position</p> <p>APM 19-3 agreed to:</p> <p>Take No Change approach as the African preliminary position.</p> <p>Note that the existing frequency arrangements for IMT as detailed in Rec. ITU-R M.1036 are sufficient to help enable a wide range of narrowband and broadband MTC applications and devices, both above and below 1 GHz, and a consequence.</p> <p>Emphasize the need for and support harmonized use of spectrum to support the implementation of narrowband and broadband MTC.</p>

Agenda Item 9.1.8 Urgent Studies for Machine Type Communications (MTC)

<p>CEPT (2018-11-30)</p>	<p>Preliminary Position</p> <p>CEPT supports studies on the technical and operational aspects of radio networks and systems, as well as spectrum needed, including possible harmonized use of spectrum to support the implementation of narrowband and broadband machine-type communication infrastructures, in order to develop Recommendations, Reports and/or Handbooks, as appropriate. CEPT is of the view that no modifications to the Radio Regulations are required in order to resolve Agenda item 9.1 issue 9.1.8.</p> <p>CEPT supports the consideration of IMT technologies within Agenda item 9.1 issue 9.1.8 as well as the consideration of non-IMT technologies in the purview of WPs 1B and 5A related to machine-type communications.</p>
<p>CITEL (2019-04-12)</p>	<p>Inter-American Proposal</p> <p>NOC Radio Regulations Volumes 1 and 2</p> <p>Reasons: Analysis of the current and future spectrum use for narrowband and broadband machine type communications (MTC), also known as machine-to-machine (M2M) or Internet of Things (IoT), concluded that there is no need to identify specific spectrum for those applications. Therefore, no change to the Radio Regulations or regulatory action is required.</p> <p>SUP ANNEX TO RESOLUTION 958 (WRC-15): Urgent studies required in preparation for the 2019 World Radiocommunication Conference, item 3.</p> <p>Reasons: Analysis of the current and future spectrum use for narrowband and broadband machine type communications (MTC), also known as machine-to-machine (M2M) or Internet of Things (IoT), concluded that there is no need to identify specific spectrum for those applications. Therefore, no change to the Radio Regulations or regulatory action is required. No changes also apply to RR Volume 3, apart from the suppression proposed to parts of Resolution 958 (WRC-15).</p>
<p>RCC (2019-01-25)</p>	<p>Preliminary Position</p> <p>The RCC Administrations consider that any modifications to the Radio Regulations provisions related to regulation of using narrowband and broadband machine-type communication applications are not necessary.</p> <p>The RCC Administrations support the development of ITU-R Recommendations, Reports and/or Handbooks on technical and operational aspects of using different radio networks and systems, as well as on spectrum needed and experience in spectrum use, to support the implementation of narrowband and broadband machine-type communication infrastructures.</p>

Agenda Item 9.1.9 FSS (↑) Studies at 51.4-52.4 GHz

Agenda Item 9.1.9 FSS (↑) Studies at 51.4-52.4 GHz

<p>SFCG</p>	<p>The SFCG objective is to ensure that any allocation in the band 51.4-52.4 GHz will not adversely impact the EESS (passive) allocation in the bands 52.6-54.25 GHz and 50.2-50.4 GHz (both covered under RR No. 5.340).</p> <p>SFCG does not support an allocation until out of band sharing studies have been completed that show the EESS (passive) is not adversely affected and any required revision to Resolution 750 (rev. WRC 15) is agreed.</p>
<p>APT (2019-01-12)</p>	<p>Preliminary Position</p> <p>APT Members support the possibility of an allocation to the fixed-satellite service (Earth-to-space) in the frequency band 51.4-52.4 GHz limited to FSS gateway links for geostationary orbit use while protecting currently allocated services in the same frequency band and in adjacent frequency bands.</p> <p>APT Members are of the view that further review is required for the proposed unwanted emission limits for the FSS in Resolution 750 (Rev.WRC-15).</p>
<p>ASMG (2018-07-23)</p>	<p>Preliminary Position</p> <p>ASMG Preliminary Position:</p> <ul style="list-style-type: none"> ○ Initial support to FSS allocation in 51.4-52.4, that is limited to FSS feeder links. ○ Considering results of studies in A11.13
<p>ATU (2018-09-17)</p>	<p>Preliminary Position</p> <p>APM19-3 agreed to:</p> <ol style="list-style-type: none"> 1. Support an allocation of the frequency band 51.4-52.4 GHz to the fixed-satellite service (Earth to space), limited to FSS gateway links for geostationary orbit use while protecting currently allocated services in the same frequency band and in adjacent bands as proposed in the draft CPM text. 2. Support studies on evaluation of additional spectrum needs for development of FSS in accordance with resolves to invite ITU-R 1 of Resolution 162 (WRC 15). 3. Support sharing and compatibility studies with existing services for the consideration of a new primary allocation to the FSS in the frequency band 51.4-52.4 GHz (Earth-to-space) limited to FSS feeder links for geostationary orbit use. 4. Note that ECOWAS is yet to formulate a position on this agenda item.
<p>CEPT (2018-11-30)</p>	<p>Preliminary Position</p> <p>Based on the results of studies on additional spectrum needs for development of the fixed-satellite service and on the sharing and compatibility studies conducted in accordance with Resolution 162 (WRC-15), CEPT supports the additional allocation of 1 GHz spectrum in 51.4-52.4 GHz band for the GSO FSS (Earth-to-space) gateways.</p>

Agenda Item 9.1.9 FSS (↑) Studies at 51.4-52.4 GHz

	<p>To ensure the protection of the EESS (passive) operating in the band 52.6-54.25 GHz CEPT is proposing an unwanted emission limit of [-37/-39] dBW/100 MHz associated to a maximum elevation angle of [74/78°] for FSS Earth stations that would operate in the 51.4 - 52.4 GHz band. For elevation angles equal or higher than [74/78°] the proposed unwanted emission limit is -52 dBW/100 MHz. This assumes a 3 dB apportionment of the EESS (passive) protection criterion to take into account the aggregate interference from all the active services allocated in the 51.4-52.4 GHz band. CEPT supports studies regarding the impact on radio astronomy observations in the band 51.4-54.25 GHz.</p> <p>FSS gateways Earth stations shall operate with a minimum antenna diameter of [4.5] m.</p>
<p>CITEL (2019-04-12)</p>	<p>Draft Inter-American Proposal</p> <p>MOD Table of transmitting frequencies in the VHF maritime mobile band Reasons: The Group A devices are used for maritime safety applications and should therefore use appropriate safety frequencies identified in Appendix 18.</p> <p>MOD Resolution 750 to limit the unwanted emissions from the FSS Earth stations falling in the frequency band 52.6 54.25 GHz so as to protect the EESS (passive) according Preliminary View of USA</p> <p>NOC to the table of frequencies for the frequency band 51.4-52.4 GHz (Earth-to-space), because the ITU-R studies have shown that coexistence between the fixed-satellite service (FSS) Earth-to-space and the incumbent active services can be achieved, but any assignment must ensure the protection of passive services.</p>
<p>RCC (2019-01-25)</p>	<p>Preliminary Position</p> <p>The RCC Administrations pursuant to the results of studies of additional spectrum needs for the development of the fixed-satellite service and the sharing and compatibility studies carried out by ITU-R under Resolution 162 (WRC-15) do not oppose the new allocation of the frequency band 51.4-52.4 GHz on the primary basis to the GSO FSS (Earth-to-space), limited to gateway earth stations using a minimum antenna diameter of 4.5 m, provided the mandatory protection is granted to EESS (passive) – Example 1 in draft CPM Report.</p> <p>The RCC Administrations consider that the technical conditions and regulatory provisions for use of the new allocation to the FSS (Earth-to-space) in the 51.4-52.4 GHz band, limited to communication links for gateway earth stations in GSO FSS satellite networks, shall ensure protection of existing services and systems in the considered and adjacent frequency bands and development of possible related regulatory measures, including revision of Resolution 750 (Rev. WRC-15), based on the relevant EESS (passive) protection criteria in the frequency band 52.6-54.25 GHz.</p> <p>The RCC Administrations consider that the permissible aggregate out-of-band interference level from all active services, stated in Recommendation ITU-R RS.2017, should be distributed between the active services which could be the potential interferers to EESS (passive) sensors in the frequency band 52.6-54.25 GHz, including taking into account the potential impact of IMT systems' second harmonic, considered under WRC-19 agenda item 1.13</p>

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<p>SFCG</p>	<p><u>General principles</u></p> <p>It is very important to ensure that before any new agenda item is agreed at WRC-19, the following elements are already available:</p> <ol style="list-style-type: none"> 1. Clear demonstration and quantification of the spectrum requirements. 2. Technical and operational parameters of the new systems for which modification of the RR is proposed. 3. Identification of the exact bands to be considered for regulatory changes. 4. Preliminary studies on the feasibility of sharing in these bands. <p>Taking into account Resolution 804 (rev. WRC-12), SFCG is of the view that adherence to these principles should be made conditional for adoption of any new WRC agenda item. It should be noted that application of these principles by the space sciences community is demonstrated in the WRC-23 preliminary agenda items 2.2 and 2.3 discussed below.</p> <p>SFCG also supports the inclusion of the following item on the WRC-23 agenda:</p> <p>Agenda Item X.X1 to consider a mechanism in RR Appendix 10 to improve the reporting of interference to passive sensors in accordance with Resolution YYY (WRC-19).</p> <p>The SFCG supports studies examining the possibility of establishing a mechanism in Appendix 10 to report harmful interference to EESS (passive) sensors.</p>
<p>APT (2019-01-12)</p>	<p>Preliminary Position</p> <p>In developing new WRC Agenda items, APT Members support the ‘Principles for establishing agendas for WRCs’ as detailed in Annex 1 to Resolution 804 (Rev.WRC-12) and encourage administrations to use the <i>Template for the submission of proposals for agenda items</i> (Annex 2 of the Resolution).</p> <p>APT members are encouraged to consider the WRC-23 preliminary agenda items included in Resolution 810(WRC-15) and provide their views to the next APG meeting, together with conditions and course of actions to be undertaken in regard with these preliminary agenda items.</p> <p>Proposal for a possible new WRC-23 agenda item to consider identification for use by high altitude platform station as IMT base stations (HIBS) in the frequency bands below 2.7 GHz identified for IMT:</p> <p>APT Members are considering the establishment of an agenda item for WRC-23 which aims at identifying frequency bands for HIBS subject to resolution of various issues related to the subject matter, including the choice of frequency bands, depending on the results of studies currently carried out by AWG, in a satisfactory manner.</p> <p>Proposal for a possible new WRC-23 agenda item for VHF Space-Based Voice Communication Service:</p> <p>The proposed new item for inclusion in the agenda of WRC-23 to consider the possible identification of the VHF frequency band 118 – 137 MHz for Aeronautical Mobile Satellite (Route) Service is forwarded to the next APG meeting for further consideration.</p>

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	<p>Proposal for a possible new WRC-23 agenda item for revising footnote No. 5.522B relating to the use of 18.6-18.8 GHz for FSS non-GSO systems:</p> <p>The proposed new item for inclusion in the agenda of WRC-23 to study the technical and regulatory issues associated with a possible revision to footnote No. 5.522B to enable the use of the band 18.6-18.8 GHz (space-to-Earth) by FSS non-GSO systems with an apogee below 20,000 km is forwarded to the next APG meeting for further consideration.</p> <p>Proposal for a possible new WRC-23 agenda item for the allocation of the frequency bands 1518-1559 MHz, 1626.6-1660.5 MHz and 1668-1675 MHz to the mobile-satellite service (space-to-space):</p> <p>The proposed new item for inclusion in the agenda of WRC-23 to consider possible allocation of the frequency bands 1518-1559 MHz, 1626.6-1660.5 MHz and 1668-1675 MHz to the mobile-satellite service (space-to-space) is forwarded to the next APG meeting for further consideration.</p> <p>Proposal for a possible new WRC-23 agenda item for Space Weather sensors:</p> <p>APT Members are encouraged to consider item 2.3 of the draft agenda of WRC-23 and contribute on this issue at the next APG meeting for further consideration.</p> <p>Proposal for a possible new WRC-23 agenda item for stations on board sub-orbital vehicles:</p> <p>The proposed new item for inclusion in the agenda of WRC-23 for stations on board suborbital vehicles is forwarded to the next APG meeting for further consideration.</p>
<p>ASMG (2018-07-23)</p>	<p>Preliminary Position</p> <p>ASMG Position:</p> <ul style="list-style-type: none"> ○ ASMG administrations are invited to study this matter to discuss it further in the next ASMG meeting based on proposals received at ASMG-22meeting.
<p>ATU (2018-09-17)</p>	<p>Preliminary Position</p> <p><i>APM19-3 recommends ATU member states to:</i></p> <ol style="list-style-type: none"> 1. Actively consider possible issues for discussion under this agenda item with a view to resolving any possible arising issues at an early stage: doing so would avoid the past experience whereby AI 10 issues are raised during the concluding stages of WRC thereby presenting significant challenges in the thorough considerations of the issues. 2. Let WG 6spearhead considerations of possible issues under this agenda item and advise future APMs on possible causes of action. 3. Pay extra attention to the proposed agenda on review of the use of UHF band in view of the fact that majority of African countries plan

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	<p>to extensively use the 470 – 694MHz band for broadcasting. Also, in view of the fact DTT broadcasting remains a key service in the majority of the African countries, hence the preservation of this band for unconstrained use of the DTT services.</p>
<p>CEPT (2018-11-30)</p>	<p>CEPT supports the inclusion of the preliminary Agenda items 2.1, 2.2, 2.3 and 2.5, as contained in Resolution 810 (WRC-15) and the corresponding Resolutions for the Agenda of WRC-23.</p> <p>CEPT is further considering the preliminary Agenda item 2.4 as well as proposals for new Agenda items.</p> <p>CEPT is of the view that agenda item 9.1, shall not include issues that are intended to be addressed through modifications to the Radio Regulations, including issues related to frequency allocation for radiocommunication services and/or changing the conditions of their use. In order to implement the above proposals, CEPT proposes to modify Resolution 804 (Rev. WRC-12).</p>
<p>CITEL (2019-04-12)</p>	<p>Draft Inter-American Proposal</p> <p>ADD Agenda Item to study the use of the frequency bands 17.7-20.2 GHz, 27.5-30.0 GHz, 37.5-42.5 GHz, 47.2-50.2 GHz, and 50.4-51.4 GHz for earth stations on mobile platforms communicating with non-geostationary space stations in the fixed-satellite service, in accordance with Resolution [NGSO ESIM].</p> <p>Draft Inter-American Proposal</p> <p>ADD Agenda Item [Space Weather] to consider studies relating to the technical and operational characteristics, spectrum requirements and appropriate radio service designations and protection for space weather sensors, including possible additional spectrum allocations and regulatory provisions, without placing additional constraints on incumbent services in accordance with Resolution.</p> <p>Reasons: To enable the adequate protection of the RF-based sensors used for detection of solar activity and the impact of solar activity on the Earth, its atmosphere and its geospace, as well to consider the development of this scientific service with additional allocations if it's necessary, while ensuring protection of incumbent services.</p> <p>Draft Inter-American Proposal</p> <p>ADD Agenda Item to allow revisions to the Radio Regulations, to provide regulations for radiocommunications for sub-orbital vehicles and to facilitate the safe integration of sub-orbital vehicles into the existing air traffic management system.</p> <p>Preliminary Proposal</p> <p>SUP Resolution 810, Preliminary agenda for the 2023 World Radiocommunication Conference, is no longer needed, and proposes a new Resolution with the Agenda for the 2023 World Radiocommunication Conference.</p> <p>Preliminary Proposal</p> <p>ADD Agenda Item to consider a new primary allocation to the fixed satellite service in the 17.3-17.7 GHz band in Region 2, while protecting existing primary services in the band, so as To allow a more efficient use of the 17.3.17.7 GHz band for satellite services.</p>

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	<p>Preliminary Proposal</p> <p>ADD Agenda Item to develop regulatory provision for non-geostationary satellite systems in the fixed-satellite service in the frequency bands 71-76 GHz (space-to-Earth) and 81-86 GHz (Earth-to-space), limited to gateway links only, and consider a possible new allocation to the fixed-satellite service (Earth-to-space) in the 71-76 GHz band limited to only gateway Earth stations, based on studies of technical and operational issues in accordance with Resolution.</p> <p>Preliminary Proposal</p> <p>SUP proposed agenda item 2.4 on FSS “reverse band” operation in the frequency band 37.5-39.5 GHz, because Resolution 161 (WRC-15) is being suppressed given the extensive use of this frequency band by fixed service stations globally, the consideration of this band under WRC-19 Agenda Item 1.13 for IMT, and the need to ensure passive service protection in the 36-37 GHz band.</p> <p>Preliminary Proposal</p> <p>ADD Agenda Item to study the technical and regulatory provisions for non-geostationary systems in the fixed satellite service operating in the frequency band 18.6-18.8 GHz with an orbit whose apogee is less than 20,000 km.</p>
<p>RCC (2019-01-25)</p>	<p>Preliminary Position</p> <p>The RCC Administrations consider it reasonable to include in the WRC-23 agenda the item on upgrading the allocation of the frequency band 14.8-15.35 GHz for the SRS.</p> <p>The RCC Administrations are in favour of the improvement WRC-23 standing agenda items 7, 9.1 and 9.2 activities according to principles of the document entitled "Proposals towards drawing up issues under some World Radiocommunication Conferences agenda items", see Annex 1.3</p>

WRC-23 Draft Agenda Item 2.2 EESS (Active) Around 45 MHz

WRC-23 Draft Agenda Item 2.2 EESS (Active) Around 45 MHz

SFCG	The SFCG supports studies examining the compatibility of the proposed EESS (active) operations with the incumbents. SFCG supports inclusion of this agenda item in the WRC-23 agenda.
Preliminary Positions and Proposals	
APT (2019-01-12)	No position yet
ASMG (2017-05-16)	
ATU (2017-05-16)	
CEPT (2018-11-30)	CEPT supports the inclusion of the preliminary Agenda item 2.2, as contained in Resolution 810 (WRC-15) and the corresponding Resolution for the Agenda of WRC-23.
CITEL (2019-04-12)	No Preliminary View on this agenda item yet.
RCC (2019-01-25)	

WRC-23 Draft Agenda Item 2.3 Spectrum requirements and radio service designations for space weather sensors

WRC-23 Draft Agenda Item 2.3 Spectrum requirements and radio service designations for space weather sensors	The SFCG supports studies under this agenda item to determine appropriate recognition and protection for space weather sensors in the Radio Regulations without placing additional constraints on incumbent services. SFCG supports inclusion of this agenda item in the WRC-23 agenda.
Preliminary Positions and Proposals	
APT (2019-01-12)	No position yet
ASMG (2017-05-16)	
ATU (2018-09-17)	No Preliminary View on this agenda item yet.
CEPT (2018-11-30)	CEPT supports the inclusion of the preliminary Agenda item 2.3, as contained in Resolution 810 (WRC-15) and the corresponding Resolution for the Agenda of WRC-23.
CITEL (2019-04-12)	<p>Proposal from B ADD Agenda Item</p> <p>1.[Space Weather] To consider studies relating to the technical and operational characteristics, spectrum requirements and appropriate radio service designations and protection for space weather sensors, including possible additional spectrum allocations and regulatory provisions , without placing additional constraints on incumbent services in accordance with Resolution [Space Weather] (WRC 19)</p>
RCC (2019-01-25)	

WRC-23 Draft Agenda Item 2.4 FSS (↓) in 37.5-39.5 GHz

SFCG	SFCG supports the study of this topic. However, SFCG will only support this agenda item being placed on the final WRC-23 agenda, if sufficient consideration of protection of the space science service bands has been made during the WRC-19 study cycle.
Preliminary Positions and Proposals	
APT (2019-01-12)	No position yet.
ASMG (2017-05-16)	
ATU (2017-09-15)	
CEPT (2018-11-30)	CEPT is further considering the preliminary Agenda item 2.4
CITEL (2019-04-12)	No preliminary position on this agenda item yet.
RCC (2019-01-25)	

RCC position on individual issues under AI 7

Annex 1.2

RCC position on individual issues under AI 7

Issue A – Bringing into use of frequency assignments to all non-GSO satellite systems, and consideration of a milestone-based deployment approach for non-GSO satellite systems in specific bands and services

With regard to bringing into use of non-GSO systems, the RCC Administrations support that frequency assignment to space station of non-GSO satellite systems shall be considered as having been brought into use, when notifying administration informed the Bureau that at least one space station with the confirmed capability of transmitting or receiving, has been deployed on one of the notified orbital planes of the non-GSO satellite system, irrespective of the notified number of orbital planes and satellites per orbital plane in the system. The RCC Administrations do not support identification in the Radio Regulations a continuous period of 90 or less days of deployment of a satellite, when bringing into use frequency assignments to non-GSO system.

With regard to milestone-based approach to the deployment of multi-satellite non-GSO system, the RCC Administrations support adoption of new WRC-19 Resolution based on the following:

- the procedure of the milestone-based approach of deployment of FSS and MSS multi-satellite non-GSO systems will be applied to specific frequency bands and establish requirements to the implementation of the milestone-based approach of deployment of such non-GSO systems as well as contain restrictive measures applied to non-GSO systems failed to meet the milestone.

- the procedure for the the milestone-based approach of deployment shall not be applied to frequency assignments to non-GSO satellite systems/networks used for safety of human life.

Issue B - Application of coordination arc in the Ka-band, to determine coordination requirements between the FSS and other satellite services

The RCC Administrations consider that introducing the coordination arc would increase the efficiency of coordination procedure.

The RCC Administrations support introducing the coordination arc mechanism in Ka-band to identify the need in the coordination between MSS and FSS geostationary satellite networks, as well as between MSS geostationary satellite networks, while maintaining the possibility of applying RR No. 9.41.

Issue C – Issues for which consensus was achieved in ITU-R

Issue C1 - Discrepancy and/or inconsistency between the regulatory provisions dealing with any changes to the characteristics of an assignment

The RCC Administrations consider that the existing discrepancy between provisions of Articles in RR Appendices 30, 30A and 30B and the terminology of RR Article 11 provisions do not lead to complications when applying the relevant provisions of the Radio Regulations.

Issue C2 – Using a part of the Appendix 30B frequency band

The RCC Administrations do not oppose to the proposal on possible notification of frequency assignments blocks with bandwidth of 250 MHz each for additional systems in Ku-band within Appendix 30B.

Issue C3 – Modification of Article 6 §§ 6.13 and 6.15 of Appendix 30B

The RCC Administrations do not oppose the modification of RR Article 6 §§ 6.13 and 6.15 of Appendix 30B taking into account the Rules of Procedure under RR § 6.6 of Appendix 30B.

Issue C4 – Submission of a single notice for inclusion into the List and Notification under Appendices 30/30B

The RCC Administrations support the proposal on submitting and processing a single notice for a new assignment to be included into the List under § 4.1.12 and recorded under §§ 5.1.1 and 5.1.2 for the networks in the RR Appendices 30/30A in Regions 1 and 3.

Issue C5 – Timely notification of an administration that the 6-month period under RR No. 11.46 has expired

RCC position on individual issues under AI 7

The RCC Administrations support the proposal that Radiocommunication Bureau should timely notify the administration on expiration of the 6-month deadline after the unfavorable finding was sent under RR No. 11.37 or No. 11.38.

Issue C6 – Submission of a single notice for an assignment to be included into the List and recorded under Appendix 30B

The RCC Administrations do not oppose to the proposal that for satellite networks in the RR Appendix 30B administrations would submit a single notice for a new assignment to be included into the List and recorded.

Issue C7 – The agreements concluded within the Appendix 30B for a specific period of time

Taking into account that existing provisions of the Radio Regulations allow Administrations to conclude agreements with the affected Administrations for a specific period of time, the RCC Administrations do not oppose the harmonization of RR Appendix 30B with § 4.1.13 and § 4.2.17 of Appendices 30/30A.

Issue D - Identification of those specific satellite networks and systems with which coordination needs to be effected under RR Nos. 9.12, 9.12A and 9.13

The RCC Administrations support the identification of specific GSO or non-GSO satellite networks which need coordination only according to RR Nos. 9.11A, 9.12, 9.12A or 9.13 as well as modification of relevant RR provisions.

Issue E - Harmonization of RR Appendix 30B with RR Appendices 30 and 30A

The RCC Administrations consider that the issue of harmonization of Appendix 30B and Appendices 30/30A should be studied based on the practical difficulties of Administrations applying existing procedures of the Appendix 30B revised by WRC-07.

The RCC Administrations consider that any modification of the Appendix 30B shall not result in the complication of the regulatory procedures and shall ensure protection of allotments in the Plan and frequency assignments in operation.

The RCC Administrations do not support the proposal to limit the period of validity of frequency assignments to satellite network to 15 years in the Appendix 30B with the possibility of single extension for another 15 years (harmonization of Appendix 30B with § 4.1.24 of Appendices 30/30A for Regions 1 and 3).

Issue F – Concerns with the lack of implementation of certain provisions of the Radio Regulations that can lead to difficulties during the process of entering an assignment into the RR Appendix 30B List

The RCC Administrations do not support the proposal to include in the RR Appendix 30B provisions relating to alignment of coverage area with service area in the conversion of national allotments with modification of characteristics, due to the complexity of practical implementation of the proposal.

Issue G - Updating the reference situation for Regions 1 and 3 networks under RR Appendices 30 and 30A when provisionally recorded assignments are converted into definitive recorded assignments

The RCC Administrations consider it unreasonable to modify No. 4.1.18 of RR Appendices 30 and 30A, where the reference situation of the victim satellite network would be updated only after the agreement is reached between the Administration notifying the network and the Administration notifying interfering new network.

Issue H – Modifications to RR Appendix 4 items to be provided for non-geostationary satellite systems not subject to the procedures of Section II of RR Article 9

The RCC Administrations support the inclusion of additional data elements of the RR Appendix 4 submitted for non-GSO systems at the advance publication stage in the frequency bands not subject to coordination.

The RCC Administrations are studying the relevance of insertion into RR Appendix 4 information about right ascension of the ascending node (RAAN) and additional data indicating belonging of non-geostationary satellite orbit to solar-synchronous orbit (for systems not subject to coordination) and also maximum communication distance for inter-satellite links in each specific non-GSO/GSO system.

Issue I – Additional RR Appendix 4 data items to be provided for non-geostationary satellite systems with multiple orbital planes

RCC position on individual issues under AI 7

The RCC Administrations are studying the relevance of insertion into RR Appendix 4 additional provisions under which information on configuration of non-GSO systems should be provided during notification of new non-GSO systems with several orbital planes.

Issue J – pfd limit in Section 1, Annex 1 of RR Appendix 30

The RCC Administrations are studying consequences of exceeding pfd limit by frequency assignments in Regions 1 and 3 (Section 1, Annex 1 of RR Appendix 30) on the territory of notifying Administration in relation to ensuring the protection of assignments in the Plan and in the List of RR Appendix 30 serving territories of other countries.

Issue K – Difficulties for Part B examinations under § 4.1.12 or 4.2.16 of RR Appendices 30 and 30A and § 6.21 c) of RR Appendix 30B

The RCC Administrations support re-examination of notices under § 6.21 c) of RR Appendix 30B at the stage of publication relating to IFIC Part B in the case when networks which were the basis for the unfavourable finding were included in the List with decreased by results of coordination characteristics.

RCC Administrations also are studying the possibility to extend the above-mentioned approach to Appendices 30/30A.

RCC proposals towards drawing up issues under some World Radiocommunication Conferences agenda items

Annex 1.3

RCC proposals towards drawing up issues under some World Radiocommunication Conferences agenda items

The RCC administrations have reviewed the established practice of drawing up World Radiocommunication Conferences agenda regarding items and some issues related to the Report of the Director of the Radiocommunication Bureau and indicated the following.

In accordance with No. 124 of the ITU Convention, the Conference (WRC) shall "consider and approve the report of the Director of the Bureau on the activities of the Sector since the last conference", and for this purpose WRC adds a standing item into a draft agenda:

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

Issues under agenda item 9.1 are considered in accordance with WRC Resolutions which as a rule invite Radiocommunication Sector to carry out appropriate studies and also instruct the Director of the Bureau to include the results of these studies into his Report to WRC.

Analysis of the Resolutions adopted by previous WRCs shows that studies proposed by them contain assessment of additional spectrum needs for development of different services, technical and operational aspects of networks and systems in different services, which may lead to the need for the Radio Regulations modification.

Thus the issues considered in the Report of the Director of the Bureau on the activities of the Radiocommunication Sector actually become valid WRC agenda items and in some cases they do not differ in size and complexity from items directly included into the agenda of the next Conference. Moreover, CPM-19 first session decided that CPM Report on the issues of agenda item 9.1 shall not contain examples of regulatory texts.

Proposal:

Understanding that studying the issues under agenda item 9.1, which modify the Radio Regulations, has no direct relation to the Report of the Director of the Radiocommunication Bureau, such issues should not be included into agenda item 9.1 related to the Director's Report and should be considered as individual agenda items of the next WRC.

Resolution 804 (Rev. WRC-12) should be modified in order to implement the above-mentioned proposals, and these modifications could be applied during preparations to WRC-23.

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

The experience of handling the issues presented by the Director of the Bureau under agenda item 9.2 at WRC-15 showed that administrations faced significant difficulties in their consideration. Such difficulties were related to the lack of time for studying and developing an appropriate position, both at the level of administrations and at the level of regional organizations.

Taking into account that the issues identified by the Director of the Bureau regarding the difficulties and inconsistencies encountered in the application of the Radio Regulations are of practical importance for the activities of the Bureau, it is proposed that they should be considered as early as possible, i.e. immediately after such difficulties have been identified. Various mechanisms can be used for this purpose, for example, consideration in the RRB or in the relevant SGs and/or their working parties.

In addition, one of the measures that will help administrations prepare consideration of agenda item 9.2 at WRC could be timely publication of the Director's Report on the difficulties and inconsistencies encountered in the application of the Radio Regulations.

Proposals:

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1. The Director of the Bureau to submit issues on difficulties or inconsistencies encountered in the application of the Radio Regulations in the timeframe between two WRCs to the RRB and/or ITU-R SGs for consideration in accordance with their respective scopes and competences, as well as on unresolved difficulties to CPM for information;
2. To publish in all official ITU languages the Report of the Director on unresolved difficulties or inconsistencies encountered in the application of the Radio Regulations, which require consideration by the Conference, preferably five months before the opening of the Conference.

The proposals above do not require modifications to the Radio Regulations and can be proposed to the Director of BR as the RAG recommendations, and this will allow their application during preparation to WRC-19.

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), in order to facilitate rational, efficient and economical use of radio frequencies and any associated orbits, including the geostationary-satellite orbit"

Analysis of the number of issues considered at the previous WRCs under agenda item 7 shows that their number always remains high: WRC-12 has considered more than 20 issues under agenda item 7, WRC-15 – more than 14 issues, not taking into account issues raised directly at the Conference. The situation with the number of issues under WRC-19 agenda item 7 is the same, currently WP4A has already identified 17 issues and the proposals continue to arrive.

Issues are generally added according to the proposals which are based on practical experience and reflect urgent problems in the process of coordination, notification and recording of frequency assignments to satellite networks, which require relevant modifications to the Radio Regulations. Thorough consideration of each proposal and finding agreement between stakeholders are therefore required.

Indeed, a large amount of issues being considered under the standing agenda item 7 requires spending significant resources of administrations, both time-consuming and human resources. At the same time the number of issues should not pose difficulties provided the time for their consideration and study is adequate.

In this regard, it is proposed to consider the possibility of establishing a time limit within WP4A for the opening new issues under agenda item 7, for example, by limiting this period to the second session of the CPM.

Obviously, administrations have the right to submit contributions to the Conference on new issues under agenda item 7 and the Conference should consider them and make the relevant decision. However, it is often difficult for administrations to find solutions on such issues because of the lack of relevant studies and the lack of a position agreed at the national or regional levels. As for these issues, the experience of the past conferences shows that due to time limits and difficulties in resolving such issues during the Conference, these issues are discussed and further agreed upon during the next study period.

Proposal:

1. To include into consideration under WRC agenda item 7 only the issues considered by the relevant Working Party (WP4A) in the timeframe before the second session of the CPM and included into the draft CPM Report, in order to give administrations and regional organizations enough time to draw up positions and develop regulatory texts.
2. The issues directly raised at the Conference and which the Conference could not resolve should be studied in the next study period.
3. The issues for which only single Method has been proposed and agreement has been reached in the ITU-R, are proposed to be considered on the first day of the Conference during the Plenary Meeting and, if the Conference agrees, it is proposed to take decisions on them without addressing them at the level of Committees and Working Groups.

To implement the above-mentioned Proposal 1, modification of Resolution ITU-R 2-7 "Conference Preparatory Meeting" may be required and/or Resolution 86 (Rev. WRC-07) and/or Resolution 804 (Rev. WRC-12). Therefore, proposals 1 and 2 can be implemented during preparations to WRC-23.

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Proposals 2 and 3 could be implemented already at WRC-19 provided the Conference adopts the relevant decisions.

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Conferences agenda items**

Annex 1.4

Methods to satisfy WRC-19 agenda item 1.14 supported by RCC Administrations

Frequency bands	Affected services	Method to satisfy WRC-19 agenda item 1.14
6440–6520 MHz	FS, FSS (Earth-to-space), MS, EESS (passive), RAS (in the band 6650–6675.2 MHz noting RR footnote 5.149)	<p>Method B1: Revision of the regulatory provisions for HAPS in the fixed service (FS) with a primary status in band already designated for HAPS using the revised and/or new footnotes to Radio Regulations Article 5 and relevant revised (WRC-12 Resolution 150) and/or new WRC Resolutions.</p> <p>(Sections 1/1.14/4.1 and 1/1.14/5.1 of Draft CPM Report on WRC-19 agenda item 1.14).</p>
6560–6640 MHz	FS, FSS (Earth-to-space), MS, EESS (passive), RAS (in the band 6650–6675.2 MHz noting RR footnote 5.149)	<p>Method A or C: Revision of the regulatory provisions for HAPS in the fixed service (FS) with a primary status in bands already designated for HAPS using the revised and/or new footnotes to Radio Regulations Article 5 and relevant revised (WRC-12 Resolution 150) and/or new WRC Resolutions.</p> <p>(Sections 1/1.14/4.2 and 1/1.14/5.2 of Draft CPM Report on WRC-19 agenda item 1.14).</p>

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Frequency bands	Affected services	Method to satisfy WRC-19 agenda item 1.14
21.4–22 GHz (only for Region 2)	FS, MS, EESS (passive), EESS (passive) and RAS (in the band 22.21–22.5 GHz)	<p>Method B2: Revision of the regulatory provisions for bands already allocated for FS, add new designation (s) for HAPS in the specified band for Region 2 using new footnotes to Radio Regulations Article 5 and new WRC Resolutions.</p> <p>(Sections 1/1.14/4.3 and 1/1.14/5.3 of Draft CPM Report on WRC-19 agenda item 1.14).</p>
24.25–25.25 GHz (only for Region 2)	MS, RNS (in the band 24.25–24.65 GHz), RLSS (in the band 24.65–24.75 GHz), MSS, FSS (Earth-to-space)	<p>Method B3: Revision of the regulatory provisions, add new designation (s) for HAPS in FS in the specified band for Region 2 using new footnotes to Radio Regulations Article 5 and new WRC Resolutions.</p> <p>(Sections 1/1.14/4.4 and 1/1.14/5.4 of Draft CPM Report on WRC-19 agenda item 1.14).</p>
25.25–27.5 GHz (only for Region 2)	FS, MS, MSS, FSS (Earth-to-space) EESS/SRS (in the band 25.5–27 GHz)	<p>Method B2: Revision of the regulatory provisions for bands already allocated for FS, add new designation (s) for HAPS in the specified band for Region 2 using new footnotes to Radio Regulations Article 5 and new WRC Resolutions.</p> <p>(Sections 1/1.14/4.5 and 1/1.14/5.5 of Draft CPM Report on WRC-19 agenda item 1.14).</p>

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Frequency bands	Affected services	Method to satisfy WRC-19 agenda item 1.14
27.9–28.2 GHz	FS, FSS (Earth-to-space), MS	<p>Method B1: Revision of the regulatory provisions, add designation (s) for HAPS in FS in the specified band for Region 2 using new footnotes to Radio Regulations Article 5 and new WRC Resolutions.</p> <p>(Sections 1/1.14/4.6 and 1/1.14/5.6 of Draft CPM Report on WRC-19 agenda item 1.14).</p>
31.0–31.3 GHz	FS, MS, EESS (passive) and RAS (in the band 31.3–31.8 GHz)	<p>Method B1: Revision of the regulatory provisions for HAPS in the fixed service (FS) with a primary status in band already designated for HAPS using the revised and/or new footnotes to Radio Regulations Article 5 and relevant revised (WRC-12 Resolution 145) and/or new WRC Resolutions.</p> <p>(Sections 1/1.14/4.7 and 1/1.14/5.7 of Draft CPM Report on WRC-19 agenda item 1.14).</p>
38.0–39.5 GHz	FS, MS, FSS (space-to-Earth), SRS (in the band 37.0–38.0 GHz)	<p>Method B2: Revision of the regulatory provisions for bands already allocated for FS, add new designation (s) for HAPS in the specified band using new footnotes to Radio Regulations Article 5 and new WRC Resolutions.</p> <p>(Sections 1/1.14/4.8 and 1/1.14/5.8 of Draft CPM Report on WRC-19 agenda item 1.14).</p>

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Frequency bands	Affected services	Method to satisfy WRC-19 agenda item 1.14
47.2–47.5 GHz /47.9–48.2 GHz	FS, MS, FSS (Earth-to-space), RAS (in the band 48.94–49.04 GHz)	<p>Method B1: Revision of the regulatory provisions for HAPS in the fixed service (FS) with a primary status in band already designated for HAPS using the revised and/or new footnotes to Radio Regulations Article 5 and relevant revised (WRC-12 Resolution 122) and/or new WRC Resolutions.</p> <p>(Sections 1/1.14/4.9 and 1/1.14/5.9 of Draft CPM Report on WRC-19 agenda item 1.14).</p>