

Regional Commonwealth in the field of Communications (RCC)

POSITION OF THE RCC COMMUNICATIONS ADMINISTRATIONS ON AGENDA ITEMS FOR THE 2019 WORLD RADIOCOMMUNICATION CONFERENCE

(draft, version of 14 September, 2017)

[1.1](#), [1.2](#), [1.3](#), [1.4](#), [1.5](#), [1.6](#), [1.7](#), [1.8](#), [1.9.1](#), [1.9.2](#), [1.10](#), [1.11](#), [1.12](#), [1.13](#), [1.14](#), [1.15](#), [1.16](#), [2](#), [4](#), [7](#),
[8](#), [9.1.1](#), [9.1.2](#), [9.1.3](#), [9.1.4](#), [9.1.5](#), [9.1.6](#), [9.1.7](#), [9.1.8](#), [9.1.9](#), [9.2](#), [9.3](#), [10](#)

Administrations of the participant countries of the Regional Commonwealth in the field of Communications (RCC),

recognizing the need

- to improve regulation and increase efficiency of radio spectrum and satellite orbits;
- to establish conditions for the development of radiocommunications and introduction of new radio technologies;
- to maintain the balance of interests between existing and new allocations to different radiocommunication services;
- to take into account technical and economic opportunities in the development of radiocommunications within the ITU Member States;
- to strengthen regional and international cooperation in the development of radiocommunication equipment and systems,

considering

that during studies on agenda items 1.6 (non-GSO FSS), 1.13 (IMT), 1.14 (HAPS) and 9.1 (Issue 9.1.9, Resolution **162 (WRC-15)**), it would be reasonable to identify priority and non-overlapping frequency bands for each of these items,

have developed the following position on agenda items for the 2019 World Radiocommunication Conference (WRC-19):

1.1 to consider an allocation of the frequency band 50-54 MHz to the amateur service in Region 1, in accordance with Resolution 658 (WRC-15);

The RCC Administrations consider that during studies on possible allocation of the frequency band 50-54 MHz to the amateur service in Region 1, spectrum requirements for the amateur service shall be identified.

The RCC Administrations consider that, when identifying technical and regulatory conditions for such allocation, protection shall be ensured to the broadcasting service to which this frequency band is allocated on a primary basis, including stations of the broadcasting service in the frequency band 50-54 MHz, regulated by Stockholm-61 and Geneva-89.

1.2 to consider in-band power limits for earth stations operating in the mobile-satellite service, meteorological-satellite service and Earth exploration-satellite service in the frequency bands 401-403 MHz and 399.9-400.05 MHz, in accordance with Resolution 765 (WRC-15);

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].

The RCC Administrations consider that specified limits resulted from the above-mentioned studies shall not cover the registered in MIFR space systems using frequency bands 401-403 MHz and 399.9-400.05 MHz for space operation functions.

1.3 to consider possible upgrading of the secondary allocation to the meteorological-satellite service (space-to-Earth) to primary status and a possible primary allocation to the Earth exploration-satellite service (space-to-Earth) in the frequency band 460-470 MHz, in accordance with Resolution 766 (WRC-15);

The RCC Administrations consider that there is a need to harmonize frequency allocations used by data collection systems (DCS) in the meteorological-satellite service and the Earth exploration-satellite service.

The RCC Administrations support studies on this issue, in particular, for the purpose of establishing the constraints for space stations, which ensure acceptable interference level.

However upgrading the secondary allocation to the meteorological-satellite service (space-to-Earth) to a primary status and a primary allocation to the Earth exploration-satellite service (space-to-Earth) in the frequency band 460-470 MHz are possible under the following conditions:

- 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;
- The proposed measures for the protection of the terrestrial services will not impose additional constraints on the existing satellite systems and the networks operated within meteorological-satellite service and the Earth exploration-satellite service;
- Maintaining priority of the meteorological-satellite service over the Earth exploration-satellite service.

1.4 to consider the results of studies in accordance with Resolution 557 (WRC-15), and review, and revise if necessary, the limitations mentioned in Annex 7 to Appendix 30 (Rev. WRC-12), while ensuring the protection of, and without imposing additional constraints on, assignments in the Plan and the List and the future development of the broadcasting-satellite service within the Plan, and existing and planned fixed-satellite service networks;

The RCC Administrations support studies on possible revisions to the limitations in Annex 7 to Appendix 30 (Rev. WRC-12), while ensuring the protection of, and without imposing additional constraints on, BSS assignments in the Plan and in the List and FSS networks.

The RCC Administrations support the deletion of the following limitations

Atlantic Region:

- Limitation A1 (part a) (No assignments in the Region 1 List in the frequency band 11.7-12.2 GHz further west than 37.2°W);
- Limitation A2a (No modification in the Region 2 Plan in the frequency band 12.5-12.7 GHz further east than 54°W);
- Limitation A2b (No modification in the Region 2 Plan in the frequency band 12.2-12.5 GHz further east than 44°W).

Pacific Region:

- Limitation A1 (part b) (No assignments in the Region 1 List in the frequency band 11.7-12.2 GHz further east than 146°E);

The RCC Administrations consider the possibility to delete the following limitation

Pacific Region:

- Limitation A2c (No modification in the Region 2 Plan in the frequency band 12.2-12.7 GHz further west than 175.2°W).

The RCC Administrations continue studies on suppression/revision of the following limitations:

- Limitation A3 (part a) (No assignments in the Regions 1 & 3 List outside specific allowable portions of the orbital arc between 37.2°W and 10°E);
- Limitation A3 (part b) (Max. e.i.r.p. of 56 dBW for assignments in the Regions 1 & 3 List at specific allowable portions of the orbital arc between 37.2°W and 10°E);
- Limitation A3 (part c) (Max. power flux density of -138 dB(W/(m²·27 MHz)) at any point in Region 2 by assignments in List located at 4°W and 9°E);
- Limitation B (Required agreement of administrations having assignments to space stations in the same cluster when an administration may locate a satellite within this cluster).

The RCC Administrations consider that the proposed revisions of criteria and provisions of Appendix 30 (Rev. WRC-15), other than of Annex 7, are beyond the scope of the studies in accordance with Resolution 557 (WRC-15).

1.5 to consider the use of the frequency bands 17.7-19.7 GHz (space-to-Earth) and 27.5-29.5 GHz (Earth-to-space) by earth stations in motion communicating with geostationary space stations in the fixed-satellite service and take appropriate action, in accordance with Resolution 158 (WRC-15);

The RCC Administrations consider that technical conditions and regulatory provisions shall be developed with regard to operation of earth stations in motion (ESIMs) communicating with geostationary space stations in the fixed-satellite service and using 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) frequency bands, including EESS (passive) in the frequency band 18.6-18.8 GHz and future use of EESS (Earth-to-space) in the frequency band 28.5-29.5 GHz and also use of terrestrial services in the frequency bands 25.25-27.5 GHz and 27.5-29.5 GHz.

The RCC Administrations consider that the methods including segmentation of the frequency bands, limitation of ESIM maximum off-axis e.i.r.p. spectral density, and other methods or their combinations, should be considered as the methods for sharing frequency bands 17.7-19.7 GHz (space-to-Earth) and 27.5-29.5 GHz (Earth-to-space) between ESIMs and GSO FSS stations and stations of other services having allocations in these frequency bands. ESIMs in the frequency bands 17.7-19.7 GHz shall not claim protection from fixed and mobile services.

The RCC Administrations consider that when developing technical conditions and regulatory provisions for operation of ESIMs in the frequency bands 17.7-19.7 GHz (space-to-Earth) and 27.5-29.5 GHz (Earth-to-space) special measures shall be envisaged to exclude unauthorized use of ESIMs in the territory of States that haven't granted relevant authorizations (licenses).

Regulations applicable to ESIM, which would 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.

1.6 to consider the development of a regulatory framework for non-GSO FSS satellite systems that may operate 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), in accordance with Resolution 159 (WRC-15);

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.

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.

The RCC Administrations consider that when conducting studies, protection shall be ensured to EESS (passive) in the frequency bands 36-37 GHz, 47.5-48.5 GHz and 50.2-50.4 GHz, and also to the radio astronomy service in the frequency bands 42.5-43.5 GHz, 48.94-49.04 GHz and 51.4-54.25 GHz from non-GSO FSS transmissions.

The RCC Administrations find it reasonable to study the impact of aggregate interference from GSO FSS networks and non-GSO FSS systems operated or planned to be operated 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) with the purpose of possible revision of Resolution **750 (Rev. WRC-15)** "Compatibility between the Earth exploration-satellite service (passive) and relevant active services".

The RCC Administrations consider it reasonable to study modification of interference assessment methodology specified in the Recommendation ITU-R S.1323 (Methodology A) with the purpose to broaden applicability of the methodology in the frequency bands above 30 GHz, including through the development of a new Recommendation ITU-R considering a correlation between hydrometeor fading both for wanted and interference signals taking into account statistical e.i.r.p. variations in systems with the power control in the frequency bands 40/50 GHz.

*1.7 to study the spectrum needs for telemetry, tracking and command in the space operation service for non-GSO satellites with short duration missions, to assess the suitability of existing allocations to the space operation service and, if necessary, to consider new allocations, in accordance with Resolution **659 (WRC-15)**;*

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.

The RCC Administrations consider that when using existing or new frequency allocations to the space operation service below 1 GHz for the purpose to command non-GSO satellites with short duration missions, the protection shall be ensured to the incumbent services in the same and adjacent frequency bands.

The RCC Administrations oppose using the frequency bands 150.05-174.0 MHz and 405.9-406.2 MHz (COSPAS-SARSAT) to command non-GSO satellites with short duration missions, since according to No **5.225A** some countries of Region 1 have allocated the frequency band 154-156 MHz on a primary basis to the radiolocation service, the frequency bands 150.05-153.0 MHz and 406.1-410.0 MHz are allocated to radio astronomy service on a primary basis, the frequency band 405.9-406.2 MHz as well as separate parts of the frequency band 156-162.05 MHz are used by the GMDSS, and separate parts of the frequency band 150.05-174.0 MHz are intensively used in the territory of RCC Administrations for fixed and mobile services.

*1.8 to consider possible regulatory actions to support Global Maritime Distress Safety Systems (GMDSS) modernization and to support the introduction of additional satellite systems into the GMDSS, in accordance with Resolution **359 (Rev. WRC-15)**;*

The RCC Administrations consider that the IMO position should be taken into account in regard to the GMDSS modernization, including the introduction of the IMO-recognized additional satellite systems, when developing relevant regulatory actions to support such modernization considering protection of existing services and systems.

1.9 to consider, based on the results of ITU-R studies:

1.9.1 regulatory actions within the frequency band 156-162.05 MHz for autonomous maritime radio devices to protect the GMDSS and automatic identifications system (AIS), in accordance with Resolution 362 (WRC-15);

The RCC Administrations consider it reasonable to identify categories (types), technical and operational characteristics of autonomous maritime radio devices in order to develop regulatory actions in the frequency band 156–162.05 MHz for the autonomous maritime radio devices to protect GMDSS and AIS.

1.9.2 modifications of the Radio Regulations, including new spectrum allocations to the maritime mobile-satellite service (Earth-to-space and space-to-Earth), preferably within the frequency bands 156.0125-157.4375 MHz and 160.6125-162.0375 MHz of Appendix 18, to enable a new VHF data exchange system (VDES) satellite component, while ensuring that this component will not degrade the current terrestrial VDES components, applications specific messages (ASM) and AIS operations and not impose any additional constraints on existing services in these and adjacent frequency bands as stated in recognizing d) and e) of Resolution 360 (Rev.WRC-15);

The RCC Administrations consider that introduction of the VDES satellite component shall not result in imposing constraints on existing and planned systems of services which have allocations in the common and adjacent frequency bands.

1.10 to consider spectrum needs and regulatory provisions for the introduction and use of the Global Aeronautical Distress and Safety System (GADSS), in accordance with Resolution 426 (WRC-15);

The RCC Administrations support the need in the development of the Global Aeronautical Distress and Safety System (GADSS).

The RCC Administrations consider that spectrum requirements, frequency bands, regulatory provisions for the introduction and use of GADSS should be identified based on GADSS concept which shall be developed by ICAO and submitted to the ITU. And GADSS shall share the considered and adjacent frequency bands with systems in existing services without imposing additional constraints on the existing systems.

The RCC Administrations do not oppose to increasing the period of studies on spectrum requirements and regulation for implementation and use of GADSS and transfer this issue to the WRC-23 agenda.

1.11 to take necessary actions, as appropriate, to facilitate global or regional harmonized frequency bands to support railway radiocommunication systems between train and trackside within existing mobile service allocations, in accordance with Resolution 236 (WRC-15);

The RCC Administrations consider it reasonable to harmonize frequency bands at global or regional level for their use by railway radiocommunication systems between train and trackside within existing mobile service allocations, including through the development of ITU-R Recommendations and Reports.

The RCC Administrations are of the view that harmonized use of frequency bands by railway transportation systems within existing mobile service allocations shall not impose additional constraints on other services to which these frequency bands are already allocated, and shall provide the protection of existing systems for government communication.

1.12 to consider possible global or regional harmonized frequency bands, to the maximum extent, for the implementation of evolving Intelligent Transport Systems (ITS) under existing mobile-service allocations , in accordance with Resolution 237 (WRC-15);

The RCC Administrations consider it reasonable to harmonize frequency bands at global and regional levels within existing mobile service allocations in order to implement evolving Intelligent Transport Systems, including through the development of ITU-R Recommendations and Reports.

The RCC Administrations are of the view that the implementation of evolving transport systems within existing mobile service allocations shall not impose additional constraints on services already having allocations in these or adjacent frequency bands.

1.13 to consider identification of frequency bands for future development of International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution 238 (WRC-15);

The RCC Administrations consider it reasonable to perform the compatibility studies of IMT systems first in the frequency bands 24.25–27.5 GHz, 31.8–33.4 GHz, 40.5–42.5 GHz and 66-71 GHz, where a global harmonization could be achieved.

The RCC Administrations support identification of frequency bands for future development of IMT, including possible additional allocations to the mobile service on a primary basis, in separate bands in the frequency band 24.25-86 GHz in accordance with Resolution 238 (WRC-15).

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.

The RCC Administrations consider that when performing studies an impact of aggregate interferences on receiving space or aeronautical stations shall be taken into account.

1.14 to consider, on the basis of ITU-R studies in accordance with Resolution 160 (WRC-15), appropriate regulatory actions for high-altitude platform stations (HAPS), within existing fixed-service allocations;

The RCC Administrations support the need to justify spectrum requirements for gateway station and fixed terminal links for HAPS to provide broadband connectivity in the fixed service taking into account frequency bands which have been already identified for HAPS.

The RCC Administrations support necessary modifications to existing RR Article 5 footnotes and related WRC Resolutions to facilitate HAPS development at global or regional level.

The RCC Administrations consider that in the case of modification to conditions for use of frequency bands authorized for HAPS or identification of new frequency bands for gateway station and fixed terminal links for HAPS, the protection and the possibility of further development shall be ensured for existing services, including other applications of fixed service, having allocations in these and adjacent frequency bands.

1.15 to consider identification of frequency bands for use by administrations for the land-mobile and fixed services applications operating in the frequency band 275–450 GHz, in accordance with Resolution 767 (WRC-15);

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.

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.

The RCC Administrations consider that to provide a balanced use of 275-450 GHz range, frequency bands could be identified for sharing between active and passive services, and also frequency bands for exclusive use by active and passive applications taking into account the frequency bands identified in No. **5.565** for passive services and effect of active applications in the main and adjacent frequency bands.

1.16 to consider issues related to wireless access systems, including radio local networks (WAS/RLAN), in the frequency bands between 5 150 MHz and 5 925 MHz, and take the appropriate regulatory actions, including additional spectrum allocations to the mobile service, in accordance with Resolution 239 (WRC-15);

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.

The RCC Administrations consider that reducing restrictions for the use of WAS/RLAN in the frequency bands 5 150-5 250 MHz and 5 250-5 350 MHz is possible only when efficient new mitigation methods ensuring sharing between outdoor WAS/RLAN and the systems in existing services would be identified in the considered frequency bands.

The RCC Administrations consider that 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 is possible only when methods for sharing between WAS/RLAN and the systems in existing services would be identified in the considered frequency bands.

2 to examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution 28 (Rev. WRC-15), and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with the principles contained in Annex 1 to Resolution 27 (Rev. WRC 12);

The RCC Administrations support the principles for the use of incorporation and propose updating the version of Recommendation ITU-R P.525-2 “Calculation of free-space attenuation” incorporated by reference in the Radio Regulations.

The RCC Administrations consider that the updating the reference to Recommendation ITU-R M.1638-0 “Characteristics of and protection criteria for sharing studies for radiolocation, aeronautical radionavigation and meteorological radars operating in the frequency bands between 5 250 and 5 850 MHz” in RR Nos. **5.447F**, **5.450A** shall be considered within WRC-19 issue 9.1.5.

4 *in accordance with Resolution 95 (Rev. WRC-07), to review the resolutions and recommendations of previous conferences with a view to their possible revision, replacement and abrogation;*

The RCC Administrations are of the view that this agenda item shall not address Resolutions and Recommendations that are addressed within other WRC-19 agenda items.

The RCC Administrations' position on the revision, replacement or cancellation of Resolutions and Recommendations of the previous radio conferences is given in Appendix 2 to the Document.

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;*

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.

Issue A – Factors related to the bringing into use of frequency assignments of non-GSO systems subject to coordination

The RCC Administrations consider various options for the phased procedure for bringing into use of frequency assignments of FSS and MSS multiple-satellite non-GSO systems, which will be applied to specific frequency bands and establish requirements to phased bringing into use of frequency assignments of FSS non-GSO systems and MSS non-GSO systems, depending on their configuration.

For non-GSO systems of other satellite services, the RCC Administrations also consider the inclusion of existing Rule of Procedure provisions on No. **11.44** into the Radio Regulations for the purpose of bringing into use frequency assignments of such non-GSO systems.

The RCC Administrations consider that the phased procedure for bringing into use of frequency assignments shall not be applied to frequency assignments of 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 applying the coordination arc criterion would improve coordination procedure and increase its efficiency.

The RCC Administrations support the study on the possibility of implementing the coordination arc mechanism in Ka-band to identify the need in the coordination between geostationary satellite networks in the mobile-satellite service (MSS) and the fixed-satellite service (FSS), as well as between MSS geostationary satellite networks, while maintaining the applicability of RR No. **9.41**.

Issue C – Issues for which consensus was readily achieved in ITU-R (WG 4A)

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, § 6.10 of Appendix 30B

The RCC Administrations consider the proposal on modification of Article **6**, § 6.10 of Appendix **30B**, taking into account Rules of Procedure on § 6.6 of Appendix **30B**, under which the absence of response from an administration could not be deemed that the administration has implicitly agreed on including its territory into network service area.

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

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 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 [or 9.21]

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.

The RCC Administrations oppose identification of specific GSO or non-GSO satellite networks which need coordination under RR No. 9.21.

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 existing networks.

The RCC Administrations do not support the proposal to limit the period of validity of frequency assignments to satellite network by 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 and 30A for Regions 1 and 3).

The RCC Administrations do not support the proposal to include provisions in the Appendix 30B related to the modification of the coordination procedure between the Administration which proposes inclusion of its new assignment in the List, and the Administration which has already included several assignments in the List (inclusion in the Appendix 30B of the provisions similar to § 4.1.25 of the Appendices 30 and 30A for Regions 1 and 3).

With regard to the harmonization of the Appendix 30B with § 4.1.13 of the Appendices 30 and 30A for Regions 1 and 3 and § 4.2.17 for Region 2, the RCC Administrations consider that existing provisions of the Radio Regulations allow Administrations establishing agreements for the specific period of time with the affected Administrations.

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 provisions in the Appendix 30B related to the modification of the coordination procedure between the Administration which proposes inclusion of its new assignment in the List, and the Administration which has already included several assignments in the List (inclusion in the Appendix 30B of the provisions similar to § 4.1.25 of the Appendices 30 and 30A for Regions 1 and 3).

Issue G - Updating the reference situation for networks under RR Appendices 30 and 30A when provisional recording is used

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 between the Administration notifying the network and the Administration notifying interfering new network.

Issue H – Modifications to RR Appendix 4 data elements to be provided for non-geostationary satellite networks/systems

The RCC Administrations support the inclusion of additional data elements of the RR Appendix 4 during notification of non-GSO systems.

The RCC Administrations are studying the list of additional data elements to enhance administration opportunities for modelling NGSO systems at the phases of advance publication and coordination.

8 *to consider and take appropriate action on requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, taking into account Resolution 26 (Rev.WRC-07);*

The RCC Administrations support the ITU-R activity towards global harmonization of radio spectrum use through the deletion of country footnotes or country names from footnotes in the RR Article 5.

The RCC Administrations consider that this agenda item is not intended for addition of country names into footnotes as well as for creating new footnotes.

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-15:*

Issue 9.1.1:

Resolution 212 (Rev. WRC-15) "Implementation of International Mobile Telecommunications in the frequency bands 1 885-2 025 MHz and 2 110-2 200 MHz"

The RCC Administrations are in favour of development of technical and operational measures as well as regulatory provisions with regard to IMT systems in order to ensure compatibility between IMT terrestrial component (in mobile service) and IMT satellite component (in mobile-satellite service), including GSO and non-GSO systems, in the frequency bands 1 980–2 010 MHz and 2 170–2 200 MHz where those frequency bands are shared by mobile service and the mobile-satellite service in different countries.

The RCC Administrations consider that when developing technical and operational measures with regard to terrestrial IMT systems only those characteristics of terrestrial IMT systems which are specified in ITU-R Recommendations and Reports should be used.

Issue 9.1.2:

Resolution 761 (WRC-15) "Compatibility of International Mobile Telecommunications and broadcasting-satellite service (sound) in the frequency band 1 452-1 492 MHz in Regions 1 and 3"

The RCC Administrations are in favour of the development of relevant regulatory provisions and technical conditions in order to provide compatibility between IMT and broadcasting-satellite service (sound) in the frequency band 1452-1492 MHz in Regions 1 and 3, taking into account IMT and BSS (sound) operational requirements.

The RCC Administrations consider that technical conditions and regulatory provisions developed within the framework of conducted studies should also take into account the need to protect aeronautical telemetry systems in aeronautical mobile service.

Issue 9.1.3:

Resolution 157 (WRC-15) "Study of technical and operational issues and regulatory provisions for new non-geostationary-satellite orbit systems in the 3 700-4 200 MHz, 4 500-4 800 MHz, 5 925-6 425 MHz and 6 725-7 025 MHz frequency bands allocated to the fixed-satellite service"

The RCC Administrations do not oppose possible revision of Article 21, Table 21-4 for non-GSO FSS satellites, with a view to enabling new non-GSO systems to operate in these FSS frequency bands, while ensuring that existing primary services, i.e. the mobile service and fixed service, are protected, and maintaining the existing Article 21 pfd limits for GSO networks in the frequency band 3 700–4 200 MHz (space-to-Earth).

The RCC Administrations consider that when reviewing RR Article 22 e_{pf}d↓ and e_{pf}d↑ limits for new non-GSO systems in the frequency bands 3 700–4 200 MHz (space-to-Earth), 5 925-6 425 MHz (Earth-to-space), 4 500–4 800 MHz (space-to-Earth) and 6 725–7 025 MHz (Earth-to-space), it is necessary to ensure protection of GSO FSS networks, including allotments in the Plan and assignments in the Appendix 30B List, without modification of their protection criteria.

The RCC Administrations consider that when determining operation conditions for new non-GSO FSS systems in the frequency bands:

- 3 700–4 200 MHz (space-to-Earth), 5 925–6 425 MHz (Earth-to-space), it is necessary to protect existing non-GSO FSS systems in highly-elliptical orbits;
- 4 500–4 800 MHz (space-to-Earth), 5 925–6 425 MHz (Earth-to-space) and 6 725-7 075 MHz (Earth-to-space), it is necessary to protect existing terrestrial services.

Issue 9.1.4:

Resolution 763 (WRC-15) "Stations on board sub-orbital vehicles"

The RCC Administrations are in favour of identification of services where stations ensuring sub-orbital flights shall be operated, as well as consideration of applicability of current regulatory provisions and procedures for terrestrial and space services for international recognition of relevant frequency assignments to stations on board sub-orbital vehicles.

The RCC Administrations consider it necessary to develop technical and operational measures which would help to avoid harmful interference to radiocommunication services from stations on board sub-orbital vehicles. These technical and operational measures shall be specified in the new ITU-R Recommendation and Report. At the same time, the developed technical and operational measures shall not impose additional constraints on the operation of stations used during spacecraft launch and delivery in orbit.

Issue 9.1.5:

Resolution 764 (WRC-15) "*Consideration of the technical and regulatory impacts of referencing Recommendations ITU R M.1638-1 and ITU R M.1849-1 in Nos. 5.447F and 5.450A of the Radio Regulations*"

The RCC Administrations are in favour of maintaining the conditions for use of the allocation of the frequency bands 5 250–5 350 MHz and 5 470–5 725 MHz by radiodetermination services.

The RSS Administrations consider that reference to Recommendations ITU-R M.1638-1 and M.1849-1 in the RR No. 5.450A would not result in changing the conditions for use of the frequency band 5 470–5 725 MHz allocations to services.

The RCC Administrations oppose referencing Recommendation ITU-R M.1849-1 in No. 5.447F as this would result in imposing additional constraints on mobile (except aeronautical mobile) service systems in the frequency band 5 250-5 350 MHz.

The RCC Administrations are in favour of maintaining reference to Recommendation ITU-R M.1638-0 in No. 5.447F.

Resolution 958 (WRC-15) "*Urgent studies required in preparation for the 2019 World Radiocommunication Conference*"

Issue 9.1.6:

Issue 1) in the Annex to Resolution 958 (WRC-15)

1) Studies concerning Wireless Power Transmission (WPT) for electric vehicles:

- a) to assess the impact of WPT for electric vehicles on radiocommunication services;
- b) to study suitable harmonized frequency ranges which would minimize the impact on radiocommunication services from WPT for electrical vehicles. These studies should take into account that the International Electrotechnical Commission (IEC), the International Organization for Standardization (ISO) and the Society of Automotive Engineers (SAE) are in the process of approving standards intended for global and regional harmonization of WPT technologies for electric vehicles;

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.

The RCC Administrations support the development of conditions for use of the frequency bands 19-21 kHz, 59-61 kHz, 79-90 kHz and 100-300 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.

Issue 9.1.7:

Issue 2) in the Annex to Resolution 958 (WRC-15)

2) *studies to examine:*

- a) *whether there is a need for possible additional measures in order to limit uplink transmissions of terminals to those authorized terminals in accordance with No. 18.1; and*
- b) *the possible methods that will assist administrations in managing the unauthorized operation of earth station terminals deployed within its territory, as a tool to guide their national spectrum management programme, in accordance with Resolution ITU-R 64 (RA-15);*

The RCC Administrations support the development and inclusion into the Radio Regulations additional provisions binding the Administrations to ensure during licensing the implementation of appropriate technical measures in the satellite networks, such as measures that are specified in Resolution 156 (WRC-15) (ESIM shall be subject to permanent monitoring and control by the Network Control and Monitoring Centre (NCMC), be capable of receiving and acting upon at least “enable transmission” and “disable transmission” commands from the NCMC depending on their geographical position), that would facilitate elimination of unauthorized operation of earth station terminals in global/regional satellite networks, when these terminals are outside the territory of States which administrations granted the appropriate authorization (the license).

The RCC Administrations consider that no one transmitting mobile earth station or earth station in motion shall be operated in the territory of any State without the appropriate license (authorization) from the State, issued by the government of that State or on behalf of that government in appropriate form and according with the provisions of the Radio Regulations.

The RCC Administrations consider that the issue of preventing the unauthorized use of earth stations terminals, including ESIM terminals shall be considered both under the WRC-19 Agenda item 9.1 issue 9.1.7, which is a general issue covering all frequency bands and all types of ubiquitous FSS earth stations, and WRC-19 Agenda item 1.5 relating only to a single (Ka) band and regulatory aspects for operations of earth stations in motion (ESIM) in the Ka frequency bands allocated to FSS.

Issue 9.1.8:

Issue 3) in the Annex to Resolution 958 (WRC-15)

- 3) *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, and to take appropriate actions within the ITU Radiocommunication Sector (ITU-R) scope of work*

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.

The RCC Administrations support the development of ITU-R Recommendations, Reports and/or Handbooks on technical and operational aspects of using different radio systems and technologies, as well as on spectrum needed and experience in spectrum use, to support the implementation of narrowband and broadband machine-type communication infrastructures.

The RCC Administrations understood that the practicability for harmonization of any frequency bands for narrowband or broadband machine-type communication within ITU-R Recommendations, Reports and/or Handbooks shall be justified taking into account features and prospects of the introduction of such applications both within IMT systems and non-IMT technologies.

Issue 9.1.9:

Resolution 162 (WRC-15) - "Studies relating to spectrum needs and possible allocation of the frequency band 51.4-52.4 GHz to the fixed-satellite service (Earth-to-space)"

The RCC Administrations are in favour of justification of additional spectrum needs for the development of the fixed-satellite service in the frequency bands above 50 GHz, taking into account technical aspects of using the frequency bands already allocated to this service in the ranges above 30 GHz as well as the possibility to optimize their use based on the technology of FSS satellites with multiple-beam antennas and frequency reuse.

The RCC Administrations consider that the technical conditions and regulatory provisions, which are subject to the ITU-R studies, for use of new primary allocations to the FSS (Earth-to-space) in the 51.4-52.4 GHz band, limited to GSO FSS feeder links, 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).

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

The RCC Administrations support measures to eliminate any difficulties or inconsistencies encountered in the application of the Radio Regulations.

In order to improve preparation to WRC-19, the RCC Administrations propose early mandatory consideration by Radio Regulations Board, CPM, as well as the relevant ITU-R Working parties of the information submitted to Radiocommunication Bureau on difficulties or inconsistencies encountered in the application of the Radio Regulations.

9.3 on actions in response to Resolution 80 (Rev. WRC-07);

The RCC Administrations support the studies on the development of actions towards the implementation of Resolution 80 for use of radio spectrum as well as geostationary-satellite orbits and other satellite orbits.

10 to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, taking into account Article 7 of Convention.

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.

The RCC Administrations are in favour of the optimization of WRC-23 agenda item 7 activities through the development of the course of actions (e.g., establishment of deadline for submitted proposals) to compose a list of specific issues devoted to advance publication, coordination, notification and recording procedures for frequency assignments to satellite networks.

The RCC Administrations develop the document entitled "Proposals towards drawing up issues under individual World Radiocommunication Conferences agenda items", see Annex 1.

ANNEX 1

Proposals towards drawing up issues under individual World Radiocommunication Conferences agenda items

The RCC administrations have reviewed the established practice of drawing up World Radiocommunication Conferences agenda regarding items and individual 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.

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

Proposals

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.

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"*

The size of issues studied under the standing WRC agenda item 7 raises some concern.

Issues are 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 and require relevant modifications to the Radio Regulations. Thorough consideration of each proposal and finding agreement between stakeholders are therefore required.

As for the issues raised directly at WRC, the experience of the past conferences shows difficulties in resolving such issues during the Conference and in practice these issues are discussed and further agreed during the next period.

Proposal

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.

In order to implement the above-mentioned proposals, the RCC Administrations are considering possible modifications to Resolution 86 (Rev. Marrakesh, 2002), Resolution 86 (Rev. WRC-07) and/or Resolution 804 (Rev. WRC-12).

ANNEX 2

Position of the RCC administrations on revision, replacement or suppression of Resolutions and Recommendations of previous WRCs

Abbreviations:

WRC – World Radiocommunication Conference

ICAO - International Civil Aviation Organization

IMO - International Maritime Organization

NOC – No Change

MOD –Modification

SUP – Suppression

N°	Title	Status of Resolution, proposals from other organisations/administrations	Action at WRC-19
1	RESOLUTION 18 (REV. WRC-15) Relating to the procedure for identifying and announcing the position of ships and aircraft of States not parties to an armed conflict	Still relevant Proposals: ICAO - MOD (within WRC-19 AI 1.10) IMO – NOC	NOC
2	RESOLUTION 20 (REV. WRC-03) Technical cooperation with developing countries in the field of aeronautical telecommunications	Still relevant Proposals: ICAO – NOC	NOC
3	RESOLUTION 205 (REV. WRC-15) Protection of the systems operating in the mobile-satellite service in the band 406-406.1 MHz	Still relevant Modified within WRC-15 AI 9.1 (Issue 9.1.1) Proposals: ICAO – NOC. IMO – NOC/MOD	NOC
4	RESOLUTION 207 (REV. WRC-15) Measures to address unauthorized use of and interference to frequencies in the frequency bands allocated to the maritime mobile service and to the aeronautical mobile (R) service	Still relevant Proposals: ICAO – NOC IMO – NOC/MOD	NOC
5	RESOLUTION 217 (REV. WRC-97) Implementation of wind profiler radars	Still relevant Proposals: ICAO – NOC	NOC

N°	Title	Status of Resolution, proposals from other organisations/administrations	Action at WRC-19
6	RESOLUTION 344 (REV. WRC-12) Management of the maritime identity numbering resource	Still relevant Proposals: IMO – NOC/MOD	NOC
7	RESOLUTION 354 (WRC-07) Distress and safety radiotelephony procedures for 2182 kHz	Still relevant Proposals: ICAO - NOC IMO – NOC/MOD	NOC
8	RESOLUTION 356 (WRC-07) ITU maritime service information registration	Still relevant Proposals: ICAO - NOC IMO – NOC/MOD	NOC
9	RESOLUTION 417 (REV. WRC-15) Use of the frequency band 960-1 164 MHz by the aeronautical mobile (R) service	Still relevant Proposals: ICAO – NOC	NOC
10	RESOLUTION 424 (WRC-15) Use of Wireless Avionics Intra-Communications in the frequency band 4 200-4 400 MHz	Still relevant Adopted within WRC-15 AI 1.17 (WAIC) Proposals: ICAO – NOC	NOC
11	RESOLUTION 612 (REV. WRC-12) Use of the radiolocation service between 3 and 50 MHz to support oceanographic radar operations	Still relevant Proposals: ICAO – NOC IMO – NOC/MOD	NOC
