

STATUS

OF RCC PREPARATION TO THE WRC-27 & RA-27

STRUCTURE OF RCC

PREPARATORY PROCESS TO WRC-27



Chairman: Sherzod Shermatov

BOARD OF RCC CAS HEADS

- Approve RCC Position
- Approve RCC Common Proposals (CP)



Chairman: Valery Butenko

COMMISSION ON SPECTRUM & ORBIT

- Approve RCC Position on behalf of the RCC Board
- Approve RCC CP on behalf of the RCC Board

RCC CP - support at least 50% of the RCC members and oppose less than 50% of the number of supporting

RCC MEMBERS

- Propose RCC Position
- Propose RCC CP



Chairman: Sergey Pastukh

WORKING GROUP RA/WRC

- Draft RCC Position
- Draft RCC CP

COORDINATORS ON WRC AI

- RCC Als Brief
- Propose Position & CP

Coordinator's team



PREPARATORY PROCESS FOR WRC-27

WG RA/WRC

– GROUP OF RCC COMMISSION ON SPECTUM & ORBIT RESPONSIBLE FOR WRC & RA PREPARATION.

CHAIRMAN: Sergey Pastukh, (serg-past@mail.ru)

V-CHAIRMAN: Olga Dashkevich (dashkevich@belgie.by)

COORDINATOR: for every AI Coordinator(s) and Group

of experts from RCC countries

WG RA/WRC

- IS TASKED TO DEVELOP THE FOLLOWING DOCS:

- Coordinator's Paper (Brief) on Als of WRC-27
- Draft RCC Position to WRC-27
- Draft RCC CPs to WRC-27 & RA-27

WG RA/WRC

HAD 4 MEETING OUT OF 9 PLANED MEETINGS:

1st meeting: 11-15 March 2024, Yerevan, ARM

2d meeting: 09-13 September 2024, Brest, BLR

3th meeting: 07-11 April 2025, Dushanbe, TJK

4th meeting: September 2025, St-Petersburg, RUS

5th meeting: March-April 2026, [TBD], KAZ

6th meeting: September 2026, [TBD], KGZ

7th meeting: February 2027, [TBD]

8th meeting: May 2027, Khiva, UZB

9th meeting: September 2027, [TBD], RUS



PREPARATORY PROCESS FOR RA-27

WG RA/WRC

- IN PREPARATION TO RA-27 IS TASKED TO:
- REVIEW ITU-R RESOLUTIONS:
- WG RA/WRC study carefully the activities of the SGs on ITU-R Resolutions concerning:
 - Working methods of the RA and the ITU-R SGs (4 ITU-R Resolutions);
 - Organization of the work of the RA and the ITU-R SGs (6 ITU-R Resolutions);
 - o Work program of the ITU-R SGs (30 ITU-R Resolutions).
- All 40 ITU-R Resolutions will be reviewed and divided into following categories NOC, MOD, SUP.
- Proposals for a new ITU-R Resolutions will be considered (ADD category).
- PROPOSE NOC, MOD, SUP, ADD FOR ITU-R RESOLUTION:
- Resolution ITU-R 2-9 should be amended (MOD) in order to improve the CPM process.

RCC coordinators for WRC-27 Agenda

tems	RCC Coordinator
Al 1.1 FSS ESIM 50 GHz	Dr. Mikhail SIMONOV (RUS) simonovmm@nic-t.ru
AI 1.2 FSS 14 GHz Small Antenna	Ms. Madina Nurakova (KAZ) m.nurakova@rfs.gov.kz
Al 1.3 NGSO Feeder Link	Mr. Sergey Uvarov (RUS) <u>uvarovss@nic-t.ru</u>
AI 1.4 FSS & BSS 17 GHz	Ms. Alexandra Pakhomova (RUS) pahomonaav@nic-t.ru
AI 1.5 NGSO F(M)SS Service Aria	Mr. Nikolay VARLAMOV (RUS) <u>vnv73@mail.ru</u>
Al 1.6 FSS equitable access 30/40/50 GHz	Ms. Tatyana SMIRNOVA (RUS) smirnovatv@nic-t.ru
Al 1.7 IMT 4.5 GHz, 8 GHz, 15 GHz	Mr. Alexander PASTUKH (RUS) apastukh@lenta.ru



Total number of Agenda Items: 27

Number of Coordinators & Co-Coordinators: 59

Note: Coordinator on AI 9.1 will be appointed after publication of draft BR Director's Report



WRC-27 AI	RCC Coordinator	
Al 1.8 RLS above 230 GHz	Dr. Olga IASTREBTSOVA (RUS) yastrebtsovaoi@nic-t.ru	
Al 1.9 AM(OR)S App 26 support WB-HF	Mr. Andrey KARNAUKHOV (RUS) <u>karnaukhov.1970@list.ru</u>	
Al 1.10 Art. 21 Table 21-4 PFD limits 71-86 GHz	Dr. Olga IASTREBTSOVA (RUS) yastrebtsovaoi@nic-t.ru	00
Al 1.11 Space-Space Links L-band & S-band	Dr. Dmitry ARONOV (RUS) <u>aronov@g-tl.ru;</u>	
AI 1.12 MSS - IoT L-band & S-band	Mr. Andrey KARNAUKHOV (RUS) <u>karnaukhov.1970@list.ru</u>	
AI 1.13 DC-MSS-IMT	Ms. Olga MIRONOVA (RUS) <u>mironovaol@nic-t.ru</u> (issues in WP 4C)	35
	Mr. Serikbolsyn MYRZAKHMET (KAZ) <u>s.myrzakhmet@rfs.gov.kz</u> (issues in WP 5D)	

RCC coordinators for WRC-27 Agenda Items

WRC-27 AI	RCC Coordinator	
Al 1.14 MSS in S-band	Mr. Andrey KARNAUKHOV (RUS) karnaukhov.1970@list.ru	
Al 1.15 SRS space-space Lunar links	Mr. Aleksandr DOMAKHIN (RUS) alex.domakhin.rfc@gmail.com	
Al 1.16 Radio Silence Zones in RAS bands	Mr. Sirojidin Usmanov (UZB) <u>s.usmanov@digital.uz</u>	
Al 1.17 Space Weather Sensors	Mr. Abdulloh Sodiqov (UZB) a.sodiqov@unicon.uz	
Al 1.18 EESS & RAS protection > 76 GHz	Mr. Anuar MAGZUMOV (KAZ) a.magzumov@rfs.gov.kz	
Al 1.19 EESS (passive) 4.2 GHz and 8.4 GHz	Mr. Anton STEPANOV (RUS) a.stepanov.rfc@gmail.com	
Al 2 Rec in RR Al 4 Res/Rec	Mr. Ulugbek AZIMOV (UZB) <u>u.azimov@unicon.uz</u>	(F3)

WRC-27 AI	RCC Coordinator	
AI 7 Sat. procedures	Ms. Olga DASHKEVICH (BLR) <u>dashkevich@belgie.by</u>	
	Mr. Agzam TADZHIBAYEV (KAZ) <u>a.tadzhibayev@rfs.gov.kz</u>	
	Ms. Natalia STEPANOVA (RUS) natals08@mail.ru	
Al 8 Article 5 Country Footnotes	Ms. Aichurok MARALBEK KYZY (KGZ) aichurok@gmail.com	
Al 9.2 BR Director's Report RR conflicts	Mr. Adilet ZHOROKULOV (KGZ) adilet.jorokulov.aj@gmail.com (General issues)	
	Mr. Vladislav SOROKIN (RUS) <u>v.s@inbox.ru</u> (Sat&Ter issues)	
Al 9.3 RRB Report	Mr. Agzam TADZHIBAYEV (KAZ) _a.tadzhibayev@rfs.gov.kz	
Al 10 Agenda WRC-31	Mr. Anton STEPANOV (RUS) a.stepanov.rfc@gmail.com	

KEY WRC-27 AIS FOR RCC

FACILITATE INNOVATION, SHARING, COMPATIBILITY, HARMONIZATION AND TRANSPARENT REGULATION

AGENDA ITEMS IDENTIFIED AS KEY ITEMS FOR RCC

IMT

SATELLITE & SCIENCE

REGULATION

1.7 – IMT 4.5 & 8 & 15 GHz 1.13 – DS-MSS-IMT 1.5 – NGSO F(M)SS Service Area 1.12 – MSS – IoT L-band & S-band 1.19 – EESS 4.2 & 8.4 GHz 7 - Satellite procedures9.2 - BR Director's Report





to consider the technical and operational conditions for the use of the frequency bands 47.2 – 50.2 GHz and 50.4 – 51.4 GHz (Earth-to-space), or parts thereof, by aeronautical and maritime earth stations in motion communicating with space stations in the fixed-satellite service and develop regulatory measures, as appropriate, to facilitate the use of the frequency bands 47.2 – 50.2 GHz and 50.4 – 51.4 GHz (Earth-to-space), or parts thereof, by aeronautical and maritime earth stations in motion communicating with geostationary space stations and non-geostationary space stations in the fixed-satellite service, in accordance with Resolution 176 (Rev.WRC-23);

Preliminary RCC Position

- The RCC Administrations are studying regulatory provisions and technical conditions that will allow aeronautical and maritime ESIMs to communicate with geostationary (GSO) and non-geostationary (NGSO) space stations in the FSS operating in the frequency bands 47.2 50.2 GHz and 50.4 51.4 GHz (Earth-to-space) or parts thereof, while ensuring the protection of existing services to which these and adjacent frequency bands are allocated, including passive services in adjacent frequency bands, without changing the conditions of allocation/use of frequency bands for existing applications/services.
- The RCC Administrations consider the unauthorized use of maritime and aeronautical ESIMs within the
 territories of states that have not granted the relevant authorizations (licenses) unacceptable. This should be
 achieved through the implementation of the RR provisions and technical conditions that define the procedure
 for filing notification in the ITU and operating of ESIMs.
- The RCC Administrations consider it appropriate to develop a new WRC-27 Resolution on the conditions for the use of the frequency bands 47.2 50.2 GHz and 50.4 51.4 GHz (Earth-to-space) by aeronautical and maritime ESIMs in GSO networks and/or non-GSO systems in the FSS as a possible Method to satisfy WRC-27 Agenda item 1.1.



The RCC Administrations consider it necessary to define the responsibility of Administrations that have authorized the operation of aeronautical and maritime ESIMs in GSO networks and/or non-GSO FSS systems, and to develop Recommendation ITU-R on the functionality and implementation of the Network Control and Monitoring Centre (NCMC) for ESIMs based on the results of the above studies and the provisions of Resolutions 121 (WRC-23), 123 (WRC-23), 156 (Rev. WRC-23) and 169 (Rev. WRC-23) on the conditions for the use of aeronautical and maritime ESIMs in the Ku/Ka frequency bands allocated to the FSS.





to consider possible revisions of sharing conditions in the frequency band 13.75 – 14 GHz to allow the use of uplink fixed-satellite service earth stations with smaller antenna sizes, in accordance with Resolution 129 (WRC-23);

Preliminary RCC Position

• The RCC Administrations are studying possible changes to the provisions of the RR Nos. 5.502 and 5.503 and associated regulatory measures based on studies of technical and operational limitations regarding the minimum antenna sizes and associated power limitations of GSO and non-GSO FSS earth stations in the frequency band 13.75 – 14 GHz (Earth-to-space).





to consider studies relating to the use of the frequency band 51.4 – 52.4 GHz to enable use by gateway earth stations transmitting to non-geostationary-satellite orbit systems in the fixed-satellite service (Earth-to-space), in accordance with Resolution 130 (WRC 23)

Preliminary RCC Position

■ The RCC Administrations are studying the issue of using the frequency band 51.4 – 52.4 GHz by gateway earth stations transmitting to non-geostationary-satellite orbit systems in the fixed-satellite service (non-GSO FSS), while ensuring EESS (passive) protection in the frequency band 52.6 – 54.25 GHz, which should be implemented by limiting the levels of unwanted emissions from gateway earth stations of non-GSO FSS systems in Resolution 750 (Rev. WRC-19). The levels of unwanted emissions from gateway earth stations in the frequency band 52.6 – 54.25 GHz should be specified taking into account the protection of the EESS (passive) from the aggregate interference of GSO and non-GSO FSS.







to consider a possible new primary allocation to the fixed-satellite service (space-to-Earth) in the frequency band 17.3 – 17.7 GHz and a possible new primary allocation to the broadcasting-satellite service (space-to-Earth) in the frequency band 17.3 – 17.8 GHz in Region 3, while ensuring the protection of existing primary allocations in the same and adjacent frequency bands, and to consider equivalent power flux-density limits to be applied in Regions 1 and 3 to non-geostationary-satellite systems in the fixed-satellite service (space-to-Earth) in the frequency band 17.3 – 17.7 GHz, in accordance with Resolution 726 (WRC 23)

Preliminary RCC Position

- The RCC Administrations believe that possible new allocations to the FSS (space-to-Earth) in the frequency band 17.3 17.7 GHz and to the BSS (space-to-Earth) in the frequency band 17.3 17.8 GHz in Region 3 should not lead to changes in the conditions of use/allocation for existing applications/services in the same and adjacent frequency bands.
- The RCC Administrations support ensuring protection of the services to which the frequency band 17.3 17.8 GHz is allocated on a primary basis in Region 1, as well as FS in the frequency band 17.7 19.7 GHz and the EESS (active) in the frequency band 17.2 17.3 GHz.
- The RCC Administrations support ensuring protection of GSO FSS networks in Region 1 when considering the applicability of Regions 1 and 3 non-GSO FSS epfd limits, pertaining to the frequency band 17.3 17.7 GHz, to Region 2.
- The RCC Administrations believe that possible equivalent power flux-density limits that may be applied for the frequency band 17.3 17.7 GHz to non-GSO FSS systems in Region 1 should not be applied to non-GSO FSS systems (space-to-Earth) notified to ITU BR before the end of WRC-27. The provisions of RR No. 22.2 will continue to apply to these non-GSO systems.





to consider regulatory measures, and implementability thereof, to limit the unauthorized operations of nongeostationary-satellite orbit earth stations in the fixed-satellite and mobile-satellite services and associated issues related to the service area of non-geostationary-satellite orbit satellite systems in the fixed-satellite and mobile-satellite services, in accordance with Resolution 14 (WRC-23)

- ☐ The RCC Administrations support the development of RR provisions and technical measures:
- allowing at any time to exclude from the service area of non-GSO FSS and/or MSS systems the national territory
 of the State whose Administration has submitted a corresponding request to the ITU BR, while the ITU BR shall
 introduce and publish the relevant amendments to the service area of the notified satellite system in a Special
 Section of BR IFIC;
- obliging the Administration that notifies non-GSO FSS and/or MSS systems to exclude unauthorized operation (for transmission and/or reception) earth stations of these systems, located within the territory of an administration that has explicitly requested exclusion from the service area of the non-GSO system under consideration.





to consider technical and regulatory measures for fixed-satellite service satellite networks/systems in the frequency bands 37.5 – 42.5 GHz (space-to-Earth), 42.5 – 43.5 GHz (Earth-to-space), 47.2 – 50.2 GHz (Earth-to-space) and 50.4 – 51.4 GHz (Earth-to-space) for equitable access to these frequency bands, in accordance with Resolution 131 (WRC-23)

- The RCC Administrations are studying possible technical measures and regulatory provisions, aimed at ensuring equitable access of FSS networks/systems to the frequency bands 37.5 42.5 GHz (space-to-Earth), 42.5 43.5 GHz (Earth-to-space), 47.2 50.2 GHz (Earth-to-space) and 50.4 51.4 GHz (Earth-to-space), subject to ensuring protection of existing primary services allocated in the same or adjacent frequency bands.
- The RCC Administrations believe that ensuring equitable access of FSS networks/systems to 30/40/50 GHz
 frequency bands by planning methods is practically unfeasible due to lack of agreed technical conditions and
 regulatory planning frameworks, as well as the presence of a large number of notified and operating FSS satellite
 networks/systems in these frequency ranges.
- The RCC Administrations believe that equitable access to the Q/V frequency bands of the FSS could be ensured by introducing regulatory measures and/or special procedures similar to the procedures aimed at expanding the possibility of equitable access in the 21.4 22 GHz frequency band in Regions 1 and 3.
- The measures being developed to ensure equitable access to the orbit-spectrum resource in the Q/V bands of the FSS should not have a negative impact on ensuring the protection of existing primary services with allocations in the same or adjacent frequency bands, while preserving the current provisions of the RR Article 22.







Agenda Item 1.7 (General issues)

to consider studies on sharing and compatibility and develop technical conditions for the use of International Mobile Telecommunications (IMT) in the frequency bands 4400-4800 MHz and 7125-8400 MHz (or parts thereof), and 14.8 – 15.35 GHz taking into account existing primary services operating in these, and adjacent, frequency bands, in accordance with Resolution 256 (WRC-23)

Preliminary RCC Position

☐ General provisions

• The RCC administrations believe that, when identifying the frequency bands 4400 – 4800 MHz, 7125 – 8400 MHz, and 14.8 – 15.35 GHz for IMT, IMT stations operating within national territories should not impose restrictions from stations of various radiocommunication services operating in international airspace or international waters, which are not subject to international recognition in accordance with RR No. 8.3, since their frequency assignments are not recorded in MIFR, except in specific cases provided for in the RR.





Agenda Item 1.7 (4400 - 4800 MHz)

to consider studies on sharing and compatibility and develop technical conditions for the use of International Mobile Telecommunications (IMT) in the frequency bands 4400-4800 MHz and 7125-8400 MHz (or parts thereof), and 14.8 – 15.35 GHz taking into account existing primary services operating in these, and adjacent, frequency bands, in accordance with Resolution 256 (WRC-23)

- The RCC Administrations support studies on possible identifying all or part of the frequency band 4400 4800
 MHz for IMT systems with the condition of protecting incumbent services for in-band and adjacent band cases.
- The RCC Administrations object to the additional application of the pfd limits to IMT stations in the frequency band 4800 4800 MHz for the protection of AMS and MMS stations located in international space (international airspace and waters), since this unreasonably restricts the use of IMT within national territories.
- The RCC administrations support the use, in studies, of the distance of AMS and MMS stations located outside national borders from the boundary of the coastal state (for example, from the boundary of the coastal state's Exclusive Economic Zone (EEZ)) or predetermined separation distance that ensures protection against interference from AMS and MMS stations to stations of other primary services located within national territories and operating in the 4400–4800 MHz frequency band; that is: in the 4400–4500 MHz frequency band 200 nautical miles (370 km), in the 4500–4800 MHz frequency band 500 km.





Agenda Item 1.7 (7125 – 8400

to consider studies on sharing and compatibility and develop technical conditions for the use of International Mobile Telecommunications (IMT) in the frequency bands 4400-4800 MHz and 7125-8400 MHz (or parts thereof), and 14.8 – 15.35 GHz taking into account existing primary services operating in these, and adjacent, frequency bands, in accordance with Resolution 256 (WRC-23)

- ☐ Frequency band 7125 8400 MHz (Regions 1, 2 and 3)
- The RCC Administrations believe that the possibility of identifying the 7125 8400 MHz frequency band should be considered separately based on the Region and sub-band:
- ☐ Frequency band 7125 7250 MHz (Region 1)
- The RCC Administrations support ensuring the protection of existing stations of radio communication services from interference in coinciding and adjacent frequency bands based on the ITU-R compatibility results. The identification of the frequency band 7125 – 7250 MHz or parts thereof for IMT systems shall not lead to changes in the conditions of use/allocation of the frequency bands for existing applications/services.
- ☐ Frequency band 7750 8400 MHz (Region 1)
- The RCC Administrations object identification of all or part of the frequency band 7750 8400 MHz for IMT systems in Region 1.
- ☐ Frequency band 7125 8400 MHz (Regions 2 and 3)
- The RCC Administrations support ensuring protection of services to which the frequency band 7125 8400 MHz is allocated in Region 1. Identification of the frequency band 7125 – 7900 MHz or parts thereof for IMT systems in Region 2 and Region 3 should not lead to changes in the conditions of use/allocation of frequency bands for existing applications/services in Region 1.
- The RCC Administrations oppose the identification of the frequency band 7900 8400 MHz or parts thereof for 15 IMT systems in Regions 2 and 3





Agenda Item 1.7 (14.8 – 15.35 GHz)

to consider studies on sharing and compatibility and develop technical conditions for the use of International Mobile Telecommunications (IMT) in the frequency bands 4400-4800 MHz and 7125-8400 MHz (or parts thereof), and 14.8 – 15.35 GHz taking into account existing primary services operating in these, and adjacent, frequency bands, in accordance with Resolution 256 (WRC-23)

- ☐ Frequency band 14.8 15.35 GHz (Regions 1, 2 and 3)
- The RCC Administrations support identification of the frequency band 14.8 15.35 GHz for IMT subject to ensuring
 protection of existing radio services in the same and adjacent frequency bands, based on the methods and
 criteria which depend on the results of ITU-R compatibility studies..
- The RCC Administrations support the development of technical conditions and possible RR provisions that ensure the protection of the space research service and the fixed service in the frequency band 14.8 15.35 GHz without changing the conditions of use/allocation of frequency bands for existing applications/services.
- The RCC Administrations object to the application of pfd limits in the frequency band 14.8 15.35 GHz to protect AMS stations located in international space.
- The RCC administrations support the use, in studies, of the distance of AMS and MMS stations located outside national borders from the boundary of the coastal state (for example, from the boundary of the coastal state's Exclusive Economic Zone (EEZ)) or a separation distance that ensures protection against interference from AMS and MMS stations to stations of other primary services located within national territories and operating in the 14.8-15.35 GHz frequency band, for example 200 nautical miles (370 km).





to consider possible additional spectrum allocations to the radiolocation service on a primary basis in the frequency range 231.5 – 275 GHz and possible new identifications for radiolocation service applications in frequency bands within the frequency range 275 – 700 GHz for millimetric and sub-millimetric wave imaging systems, in accordance with Resolution 663 (Rev.WRC-23);

- The RCC Administrations consider that possible new allocations to active systems in the radiolocation service should not affect the frequency bands mentioned in the RR Nos. 5.149 and 5.340, and the conditions of use of new spectrum allocations to the radiolocation service should exclude the occurrence of harmful interference to services allocated on a primary basis in the frequency band 231.5 – 275 GHz, including EESS (passive) and SRS (passive).
- The RCC Administrations consider that possible new allocations to systems operating only in the receive mode should not impose restrictions on the existing primary allocations in the frequency band 231.5-275 GHz.
- The RCC Administrations consider that possible new identifications of frequency bands in the frequency range 275 – 700 GHz should ensure compatibility with the applications of the services identified in the RR Nos. 5.564A and 5.565.







to consider appropriate regulatory actions to update Appendix 26 to the Radio Regulations in support of aeronautical mobile (OR) high frequency modernization, in accordance with Resolution 411 (WRC-23);

- The RCC Administrations are studying the possibility of clarifying in RR Appendix 26 the list of emission classes used by AM(OR)S stations in their exclusive use frequency bands, taking into account that wideband aeronautical mobile (OR) service systems in the frequency ranges considered in RR Appendix 26, will be compatible with existing AM(OR)S systems, as well as with systems of other existing services in the frequency ranges considered in this Appendix.
- The RCC Administrations consider that the out-of-band emission levels of AM(OR)S transmitting stations using the new wideband emission classes should not exceed the levels established for AM(OR)S systems using narrowband signals.





to consider developing power flux-density and equivalent isotropically radiated power limits for inclusion in Article 21 of the Radio Regulations for the fixed-satellite, mobile-satellite and broadcasting-satellite services to protect the fixed and mobile services in the frequency bands 71 – 76 GHz and 81 – 86 GHz, in accordance with Resolution 775 (Rev.WRC-23)

- The RCC Administrations support the development of power flux-density limits at the Earth's surface for space stations of the fixed-satellite, mobile-satellite and broadcasting-satellite services in the frequency band 71 – 76 GHz for their inclusion in RR Article 21 Table 21-4 in order to protect stations of the fixed and mobile services.
- The RCC Administrations support the development of equivalent isotropically radiated power limits for earth stations of the fixed-satellite and mobile-satellite services in the frequency band 81 86 GHz for their inclusion in RR Article 21 in order to protect stations in the fixed and mobile services.







to consider the technical and operational issues, and regulatory provisions, for space-to-space links among non-geostationary and geostationary satellites in the frequency bands 1518 – 1544 MHz, 1545 – 1559 MHz, 1610 – 1645.5 MHz, 1646.5 – 1660 MHz, 1670 – 1675 MHz and 2483.5 – 2500 MHz allocated to the mobile-satellite service, in accordance with Resolution 249 (Rev.WRC-23)

- The RCC Administrations support ensuring the protection of existing services in the frequency bands 1518 1544 MHz (space-to-Earth), 1545 1559 MHz (space-to-Earth), 1610 1613.8 MHz (Earth-to-space), 1613.8 1626.5 (space-to-Earth) (Earth-to-space), 1626.5 1645.5 MHz (Earth-to-space), 1646.5 1660 MHz (Earth-to-space), 1670 1675 MHz (space-to-Earth) (Earth-to-space) and 2483.5 2500 MHz (space-to-Earth) allocated to the MSS, as well as the protection of existing services in adjacent frequency bands, from possible interference caused by MSS stations (space-to-space) or inter-satellite service in the above-mentioned frequency bands. With this the technical conditions and the RR provisions relating to the use/allocation of frequency bands for existing applications/services should remain unchanged.
- The RCC Administrations oppose to allocation of the frequency bands 1518 1535 MHz and 1610 1626.5 MHz to MSS (space-to-space) or to ISS considering that the mentioned frequency bands or their separate parts are actively used by stations of different radiocommunication services in RCC countries.
- The RCC Administrations believe that space-to-space communication links between non-GSO and GSO satellites should not be used in the framework of MSS and should operate only within the framework of the inter-satellite service. The RCC Administrations support the development of technical conditions and RR provisions for the operation of space-to-space links for such applications in the frequency bands under consideration.





to consider, based on the results of studies, possible new allocations to the mobile-satellite service and possible regulatory actions in the frequency bands 1427 – 1432 MHz (space-to-Earth), 1645.5 – 1646.5 MHz (space-to-Earth) (Earth-to-space), 1880 – 1920 MHz (space-to-Earth) (Earth-to-space) and 2010 – 2025 MHz (space-to-Earth) (Earth-to-space) required for the future development of low-data-rate non-geostationary mobile-satellite systems, in accordance with Desolution 252 (WDC 272) Position

- The RCC Administrations are studying the possibility and conditions of allocating frequency bands for non-GSO MSS with low data rates in the frequency bands 1645.5 1646.5 MHz (space-to-Earth) (Earth-to-space), 1880 1920 MHz (space-to-Earth) (Earth-to-space), and 2010 2025 MHz (space-to-Earth) (Earth-to-space), which will ensure protection of existing services/applications allocated/identified on a primary basis in the specified and adjacent frequency bands, without changing the technical and regulatory conditions of use/allocation of the frequency bands for existing services/applications. Such allocation to the MSS should not require protection from stations using existing allocations in the frequency bands under consideration.
- The RCC Administrations object to the MSS (space-to-Earth) allocations in the frequency band 1427 1432 MHz because the proposed MSS (space-to-Earth) systems may cause unacceptable interference and impose limitations on aeronautical telemetry systems, operating in the frequency band 1429 1432 MHz within the aeronautical mobile service in accordance with the RR No. 5.342.





to consider studies on possible new allocations to the mobile-satellite service for direct connectivity between space stations and International Mobile Telecommunications (IMT) user equipment to complement terrestrial IMT network coverage, in accordance with Resolution 253 (WRC-23)

Preliminary RCC Position

- The RCC Administrations support studies on potential new MSS allocations in the frequency range between 694/698 MHz to 2.7 GHz, taking into account the IMT frequency arrangements and transmission directions addressed in the most recent version of Recommendation ITU-R M.1036.
- The RCC Administrations object to the use of the frequency bands 2110 2180 MHz, 2180 2200 MHz, 2305 2320 MHz and 2345 2360 MHz for direct connection between space stations and IMT UE due to the intensive use of these frequency bands by stations of existing services, as well as due to the fact that IMT systems in the frequency band 2300 2400 MHz operate in TDD mode.
- The RCC Administrations are of the view that the maximum e.i.r.p. of the UE in DC-MSS-IMT systems should not differ from the e.i.r.p. of the UEs of the terrestrial component of IMT.
- Additionally, the RCC Administrations support ensuring the protection of services/applications, including terrestrial IMT systems, to which the frequency bands under consideration are allocated/identified in Region 1, from any new MSS allocations. When considering measures to ensure compatibility between MSS and the terrestrial component of IMT, it is necessary to take into account the cases where IMT frequency arrangements are different in neighboring countries.
- The RCC Administrations believe that it is essential to consider that co-coverage, co-frequency deployment of terrestrial and satellite components of IMT could be feasible only if deployed as integrated networks supported by a

providing the management of frequency utilization by both components (see Resolution 212 (Rev. WRC-23)). In should be given to the fact that the frequency bands in question have already been allocated to land operators.





to consider possible additional allocations to the mobile-satellite service, in accordance with Resolution 254 (WRC-23)

- The RCC Administrations consider that possible additional allocations to the MSS under WRC-27 agenda item 1.14 should not require protection from stations of existing services and should not cause interference to them.
- The RCC Administrations oppose new allocations to the MSS in the frequency band 2120 2170 MHz (space-to-Earth) in Region 1 due to the active use of this frequency band by the terrestrial component of IMT.
- The RCC Administrations believe that when allocating the frequency band 2120 2170 MHz (space-to-Earth) in Region 3 to MSS, technical and operational conditions for MSS to use this band should ensure protection of existing services in Region 1.
- The RCC Administrations believe that the use of the MSS in the frequency band 2120 2170 MHz (space-to-Earth) in Region 3 should not in any way limit the use of existing services in Region 1, as well as their future development.





to consider studies on frequency-related matters, including possible new or modified space research service (space-to-space) allocations, for future development of communications on the lunar surface and between lunar orbit and the lunar surface, in accordance with Resolution 680 (WRC-23)

- The RCC Administrations support new space-to-space allocations to SRS in the frequency bands 7190 7235 MHz and 8450 8500 MHz for the purpose of establishing forward and return communication links for data relay with users in lunar orbit and on the lunar surface, based on the results of ITU-R studies, subject to ensuring the protection of existing radio services, including allocations to SRS (Earth-to-space) in the frequency band 7190 7235 MHz and allocations to SRS (space-to-Earth) in the frequency band 8450 8500 MHz.
- The RCC Administrations are of the view that the allocation of SRS (space-to-space) in the frequency band 7190 7235 MHz shall ensure the protection of the space operation service stations operating in accordance with the RR No. 5.459 and shall not constrain their use.
- With regard to the use of 8450 8500 MHz and 7190 7235 MHz frequency bands within SRS (space-to-space) the RCC Administrations support the development of a channeling plan for applications in lunar orbit and on the lunar surface, and imposing constraints on the occupied frequency band of lunar missions, as well as introducing requirements for the technical characteristics of radio links to ensure their compatibility.
- The RCC Administrations consider the possibility of new allocations to the SRS (space-to-space) for the purpose of future development of communications on the lunar surface and between lunar orbit and the lunar surface in the frequency bands 400.05 405 MHz, 406 406.1 MHz, 420 430 MHz, 440 450 MHz, 2400 2690 MHz, 3500 3800 MHz, 5150 5725 MHz, 5775 5925 MHz, 25.5 27 GHz and 27.5 28.35 GHz subject to ensuring the protection of existing services, including MS in the frequency bands 2500 2690 MHz and 25.25 27.5 GHz and without limiting its development, SRS (active) in the frequency band 5250 5570 MHz and SRS (space-to-Earth) in the frequency band 25.5 27 GHz, FSS in the frequency bands 3500 3800 MHz, 5775 5925 MHz, 27,5 28,35 MHz, and also shall not constrain the use of RLS in the frequency band 430 440 MHz.







to consider studies on the technical and regulatory provisions necessary to protect radio astronomy operating in specific Radio Quiet Zones, and in frequency bands allocated to the radio astronomy service on a primary basis globally, from aggregate radio-frequency interference caused by non-geostationary-satellite orbit systems, in accordance with Resolution 681 (WRC-23)

- The RCC Administrations are studying the technical condition and possible RR provisions necessary to protect the radio astronomy service in the frequency bands allocated to the radio astronomy service on a primary basis globally from aggregate radio-frequency interference caused by non-GSO systems and believe that when considering this issue, it is unacceptable to impose unjustified constraints on non-geostationary satellite systems and their further development.
- The RCC Administrations believe that the protection of the radio astronomy service operating in specific Radio Quiet Zones from aggregate radio-frequency interference caused by non-GSO systems should be carried out in accordance with the RR No. 4.6 and should not lead to additional constraints on active services.







to consider regulatory provisions for receive-only space weather sensors and their protection in the Radio Regulations, taking into account the results of ITU Radiocommunication Sector studies, in accordance with Resolution 682 (WRC-23)

Preliminary RCC Position

• The RCC Administrations support new primary allocations to the Meteorological Aids Service (space weather) for space weather sensors operating in the receive-only mode in the frequency bands 27.5 – 28.0 MHz, 29.7 – 30.2 MHz, 32.2 – 32.6 MHz, 37.5 – 38.325 MHz, 73.0 – 74.6 MHz and 608 – 614 MHz specified in Resolution 682 (WRC-23) and new footnotes in the Table of Frequency Allocations of the RR Article 5 stipulating that these new MetAids (space weather) allocations shall not claim protection from, nor constrain the future development of incumbent services in these frequency bands or in adjacent bands.





to consider, based on the results of ITU Radiocommunication Sector studies, possible regulatory measures regarding the protection of the Earth exploration-satellite service (passive) and the radio astronomy service in certain frequency bands above 76 GHz from unwanted emissions of active services, in accordance with Resolution 712 (WRC-23)

- The RCC Administrations are studying the compatibility of the Earth exploration-satellite service (passive) and the radio astronomy service in certain bands above 76 GHz with active services operating in adjacent and nearby frequency bands.
- The RCC Administrations are also studying the possible limits of unwanted emissions from active services operating in adjacent frequency bands to protect the applications of the Earth exploration-satellite service (passive) and the radio astronomy service in the 86 92 GHz, 114.25 116 GHz, 164 167 GHz and 200 209 GHz bands allocated to the Earth exploration-satellite service (passive) and the radio astronomy service on a primary basis.





to consider possible primary allocations in all Regions to the Earth exploration-satellite service (passive) in the frequency bands 4200 – 4400 MHz and 8400 – 8500 MHz, in accordance with Resolution 674 (WRC-23)

Preliminary RCC Position

• The RCC Administrations support new allocations to the EESS (passive) in the frequency bands 4200 – 4400 MHz and 8400 – 8500 MHz in support of the existing channels for measuring soil moisture and sea surface temperature in the 6/7 GHz frequency range under condition that such EESS (passive) allocations shall not put constraints on existing radio services in these and adjacent frequency bands, and shall not require protection from these radio services.





to examine the revised ITU Radiocommunication Sector Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with further resolves of Resolution 27 (Rev.WRC-19), and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with the principles contained in resolves of that Resolution

Preliminary RCC Position

• The RCC Administrations support the principles of Resolution 27 (Rev. WRC-19) on the inclusion of texts in the Radio Regulations by reference, as well as the revision of ITU-R Recommendations included by reference in the Radio Regulations, with a view to updating them as necessary.





in accordance with Resolution 95 (Rev.WRC-19), to review the resolutions and recommendations of previous conferences with a view to their possible revision, replacement or abrogation;

Preliminary RCC Position

• The RCC Administrations support a general review of the Resolutions and Recommendations of previous conferences in accordance with the terms of Resolution 95 (Rev. WRC-19) in order to ensure the relevance of the Resolutions and Recommendations of previous WRCs.





to consider possible changes, in response to Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference, on 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 the rational, efficient and economical use of radio frequencies and any associated orbits, including the geostationary-satellite orbit,

- The RCC Administrations consider it necessary to further improve the procedures for notification, coordination and registration of frequency assignments to satellite networks of various services in order to ensure equitable access of ITU Member States to the orbit-spectrum resource.
- The RCC Administrations consider topics proposed to ITU-R for study within the framework of Agenda item 7 of WRC-27, the position will be defined based on the results of the discussions during Working Party 4A meeting..









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-23);

- The RCC Administrations support the ITU-R activities aimed at global harmonization of the use of the radio frequency spectrum by reducing the number of footnotes to the RR Article 5 related to countries or deleting country names from footnotes.
- The RCC Administrations believe that this agenda item is not intended to add country names to the footnotes, or to create new footnotes to the RR Article 5.
- Any change to the footnotes to the RR Article 5 under this agenda item requires consideration of the possible consequences of such a change and, accordingly, obtaining the consent of the affected Administrations.
- The RCC Administrations believe that Resolution 26 (Rev. WRC-23) remains relevant and does not require revision.





on the activities of the ITU Radiocommunication Sector since WRC-23

Preliminary RCC Position

• The RCC Administrations position will be defined after publication of the draft BR Director's Report.





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 of the Radiocommunication Bureau Director's Report to WRC, including WRC-27, the RCC Administrations propose early consideration by the Radio Regulations Board, the Radiocommunication Advisory Group, as well as the relevant ITU-R Working parties of the information submitted to the Radiocommunication Bureau on difficulties or inconsistencies encountered in the application of the Radio Regulations.





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

Preliminary RCC Position

• RCC Administrations opinions on each section of the RRB's Report to WRC-27 developed in accordance with Resolution 80 (Rev. WRC-07) will be defined after its publication.







to recommend to the ITU Council items for inclusion in the agenda for the next world radiocommunication conference, and items for the preliminary agenda of future conferences, in accordance with Article 7 of the ITU Convention and Resolution 804 (Rev.WRC-23),

- Position of the RCC Administrations on items for the preliminary agenda of the WRC-31 (Resolution 814 (WRC-23))
 is to be defined.
- The RCC Administrations consider inclusion of additional item for the preliminary agenda of the WRC-31 on possible new global primary allocation of the 7900 – 8025 MHz band for non-GSO EESS systems (space-to-Earth).



THANK YOU

Further information

RCC web page – https://www.rcc.org.ru/ ITU web page – https://www.itu.int/oth/R0A0A000024

