

World Radiocommunication Conference 2023 agenda items—in detail (all WRC-19 Resolutions referenced are available in the Final Acts of WRC-19)

June 2020

World Radiocommunication Conference 2023 agenda items—in detail (all WRC-19 Resolutions referenced are available in the [Final Acts of WRC-19](#)).

The Administrative Circular mentioned in this document can be found via www.itu.int/md/R00-CA-CIR-0251/en.

Allocation of ITU-R preparatory work for WRC-23

1. on the basis of proposals from administrations, taking account of the results of WRC 19 and the Report of the Conference Preparatory Meeting, and with due regard to the requirements of existing and future services in the frequency bands under consideration, to consider and take appropriate action in respect of the following items:
 - 1.1 to consider, based on the results of the ITU-R studies, possible measures to address, in the frequency band 4 800-4 990 MHz, protection of stations of the aeronautical and maritime mobile services located in international airspace and waters from other stations located within national territories, and to review the pfd criteria in No. 5.441B in accordance with Resolution 223 (Rev.WRC-19);

Topic	Responsible group	Action to be taken by the group	Contributing group
Resolution 223 (Rev.WRC-19) Additional frequency bands identified for International Mobile Telecommunications	WP 5B and WP 5D Note: WP 5B and WP 5D to work jointly as provided below. ¹	resolves 1 [not applicable] 2 [not applicable] 3 that in the frequency bands 4 800-4 825 MHz and 4 835-4 950 MHz, in order to identify potentially affected administrations when applying the procedure for seeking agreement under No. 9.21 by IMT stations in relation to aircraft stations, a coordination distance from an IMT station to the border of another country equal to 300 km (for land path)/450 km (for sea path) applies; 4 that in the frequency band 4 800-4 990 MHz, in order to identify potentially affected administrations when applying the procedure for seeking agreement under No. 9.21 by IMT stations in relation to fixed-service stations or other ground-based stations of the mobile service, a coordination distance from an IMT station to the border of another country equal to 70 km applies; 5 that the power flux-density (pfd) limits in No. 5.441B , which is subject to review at WRC-23, shall not apply to the following countries: Armenia, Brazil, Cambodia, China, Russian Federation, Kazakhstan, Lao P.D.R., Uzbekistan, South Africa, Viet Nam and Zimbabwe,	WP 1B, WP 3K, WP 3M, WP 5C, WP 7D

¹ WP 5B to provide characteristics and protection criteria for the aeronautical and maritime mobile services. WP 5D initiates studies with characteristics of IMT. Studies must take into account comments from both Working Parties (*invites the ITU-R 2*). WP 5D in consultation with WP 5B develops reports/recommendations, as appropriate, which are approved by SG 5 in accordance with Resolution ITU-R 1-8 (*invites the ITU-R 4*). WP 5B and WP 5D develop relevant parts, as appropriate, of the draft CPM text. WP 5D finalizes draft CPM text taking into consideration comments by WP 5B (*for invites WRC-23*).

Topic	Responsible group	Action to be taken by the group	Contributing group
		<p>invites the ITU Radiocommunication Sector</p> <ol style="list-style-type: none"> 1 [not applicable] 2 to study the technical and regulatory conditions for the protection of stations of the aeronautical and maritime mobile services located in international airspace or waters (i.e. outside national territories) and operated in the frequency band 4 800-4 990 MHz; 3 [not applicable]; 4 to include the results of the studies mentioned in <i>invites the ITU Radiocommunication Sector</i> above in one or more ITU-R Recommendations and Reports, as appropriate, <p>invites the 2023 World Radiocommunication Conference</p> <p>to consider, based on the results of the studies referred to in <i>invites the ITU Radiocommunication Sector</i> above, possible measures to address, in the frequency band 4 800-4 990 MHz, protection of stations of the aeronautical and maritime mobile services located in international airspace and waters from other stations located within national territories and to review the pfd criteria in No. 5.441B.</p>	

1.2 to consider identification of the frequency bands 3 300-3 400 MHz, 3 600-3 800 MHz, 6 425-7 025 MHz, 7 025-7 125 MHz and 10.0-10.5 GHz for International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution 245 (WRC-19);

Topic	Responsible group	Action to be taken by the group	Contributing group
<p>Resolution 245 (WRC-19)</p> <p>Studies on frequency-related matters for the terrestrial component of International Mobile Telecommunications identification in the frequency bands 3 300-3 400 MHz, 3 600-3 800 MHz, 6 425-7 025 MHz, 7 025-7 125 MHz, and 10.0-10.5 GHz</p> <p>Note: With respect to <i>resolves</i> 1 of Resolution 245 (WRC-19), CPM23-1 defined that the date by which technical and operational characteristics needed for sharing and</p>	<p>WP 5D</p>	<p>resolves to invite ITU-R</p> <ol style="list-style-type: none"> 1 to conduct and complete in time for WRC-23 the appropriate studies of technical, operational and regulatory issues pertaining to the possible use of the terrestrial component of IMT in the frequency bands in <i>resolves to invite ITU-R 2</i>, taking into account: <ul style="list-style-type: none"> – evolving needs to meet emerging demands for IMT; – technical and operational characteristics of terrestrial IMT systems that would operate in these specific frequency bands, including the evolution of IMT through advances in technology and spectrally efficient techniques; – the deployment scenarios envisaged for IMT systems and the related requirements of balanced coverage and capacity; – the needs of developing countries; – the time-frame in which spectrum would be needed; 2 to conduct and complete in time for WRC-23 the sharing and compatibility studies¹, with a view to ensuring the protection of services to which the frequency band is allocated on a primary basis, without imposing additional regulatory or technical constraints on those services, and also, as appropriate, on services in adjacent bands, for the frequency bands: <ul style="list-style-type: none"> – 3 600-3 800 MHz and 3 300-3 400 MHz (Region 2); – 3 300-3 400 MHz (amend footnote in Region 1); – 7 025-7 125 MHz (globally); 	<p>WP 3K, WP 3M, WP 4A, WP 4B, WP 4C, WP 5A, WP 5B, WP 5C, WP 7B, WP 7C</p>

¹ Including studies with respect to services in adjacent bands, as appropriate.

Topic	Responsible group	Action to be taken by the group	Contributing group
compatibility studies are to be available is 15 June 2021.		<ul style="list-style-type: none"> – 6 425-7 025 MHz (Region 1); – 10 000-10 500 MHz (Region 2), <p>resolves</p> <ol style="list-style-type: none"> 1 to invite CPM23-1 to define the date by which technical and operational characteristics needed for sharing and compatibility studies are to be available, to ensure that studies referred to in <i>resolves to invite ITU-R</i> can be completed in time for consideration at WRC-23; 2 to invite WRC-23 to consider, based on the results of the above studies, additional spectrum allocations to the mobile service on a primary basis and to consider identification of frequency bands for the terrestrial component of IMT; the frequency bands to be considered being limited to part or all of the bands listed in <i>resolves to invite ITU-R 2</i>, <p>invites administrations</p> <p>to participate actively in these studies by submitting contributions to ITU-R.</p>	

1.3 to consider primary allocation of the band 3 600-3 800 MHz to mobile service within Region 1 and take appropriate regulatory actions, in accordance with Resolution 246 (WRC-19);

Topic	Responsible group	Action to be taken by the group	Contributing group
<p>Resolution 246 (WRC-19)</p> <p>Studies to consider possible allocation of the frequency band 3 600-3 800 MHz to the mobile, except aeronautical mobile, service on a primary basis within Region 1</p>	<p>WP 5A</p>	<p>resolves to invite ITU-R</p> <p>to conduct sharing and compatibility studies in time for WRC-23 between the mobile service and other services allocated on a primary basis within the frequency band 3 600-3 800 MHz and adjacent bands in Region 1, as appropriate, to ensure protection of those services to which the frequency band is allocated on a primary basis, and not impose undue constraints on the existing services and their future development,</p> <p>resolves to invite WRC-23</p> <p>based on the results of studies in <i>resolves to invite ITU-R</i>, to consider possible upgrade of the allocation of the frequency band 3 600-3 800 MHz to the mobile, except aeronautical mobile, service on a primary basis within Region 1, and to take appropriate regulatory actions,</p> <p>invites administrations</p> <p>to participate in these studies in the process of preparation for WRC-23.</p>	<p>WP 3K,</p> <p>WP 3M,</p> <p>WP 4A,</p> <p>WP 5B,</p> <p>WP 5C,</p> <p>WP 5D</p>

1.4 to consider, in accordance with Resolution 247 (WRC-19), the use of high-altitude platform stations as IMT base stations (HIBS) in the mobile service in certain frequency bands below 2.7 GHz already identified for IMT, on a global or regional level;

Topic	Responsible group	Action to be taken by the group	Contributing group
<p>Resolution 247 (WRC-19) Facilitating mobile connectivity in certain frequency bands below 2.7 GHz using high-altitude platform stations as International Mobile Telecommunications base stations</p>	<p>WP 5D</p>	<p>resolves to invite ITU-R</p> <ol style="list-style-type: none"> 1 to study spectrum needs, as appropriate, for high-altitude platform stations as IMT base stations to provide mobile connectivity in the mobile service taking into account: <ul style="list-style-type: none"> – the existing identification in <i>recognizing b</i>); – the usage and deployment scenario envisioned for high-altitude platform stations as IMT base stations as complementary for terrestrial IMT networks; – the technical and operational characteristics and requirements of high-altitude platform stations as IMT base stations; 2 to conduct and complete in time for WRC-23, taking into account the results of studies already performed and those in progress within ITU-R, sharing and compatibility studies to ensure the protection of services, without imposing any additional technical or regulatory constraints in their deployment, to which the frequency band is allocated on a primary basis, including other IMT uses, existing systems and the planned development of primary allocated services, and adjacent services, as appropriate, for certain frequency bands below 2.7 GHz, or portions thereof, globally or regionally harmonized for IMT, i.e.: <ul style="list-style-type: none"> – 694-960 MHz; – 1 710-1 885 MHz (1 710-1 815 MHz to be used for uplink only in Region 3); – 2 500-2 690 MHz (2 500-2 535 MHz to be used for uplink only in Region 3, except 2 655-2 690 MHz in Region 3); 3 to study appropriate modifications to the existing footnote and associated resolution in the identification in <i>recognizing b</i>) in order to facilitate the use of high-altitude platform stations as IMT base stations with the latest radio interface technologies of IMT; 4 to study the definition of high-altitude platform stations as IMT base stations (HIBS) including possible modifications to the provisions of the Radio Regulations, as appropriate; 5 to develop ITU-R Recommendations and Reports, as appropriate, taking into account <i>resolves to invite ITU-R 1, 2, 3, and 4</i> above, <p>further resolves to invite WRC-23</p> <p>to consider, based on the results of the above studies, the use of high altitude platform stations as IMT base stations in certain frequency bands below 2.7 GHz already identified for IMT, on a global or regional level, and take necessary regulatory actions, as appropriate, taking into account that changes to the footnotes in the <i>recognizing d</i>) are outside the scope and there should be no additional regulatory or technical constraints imposed on the deployment of ground-based IMT systems in the frequency bands referred to in those footnotes,</p> <p>invites administrations</p> <p>to participate actively in these studies by submitting contributions to ITU-R.</p>	<p>WP 3K, WP 3M, WP 4A, WP 4C, WP 5A, WP 5B, WP 5C, WP 6A, WP 7B, WP 7C, WP 7D</p>

1.5 to review the spectrum use and spectrum needs of existing services in the frequency band 470-960 MHz in Region 1 and consider possible regulatory actions in the frequency band 470-694 MHz in Region 1 on the basis of the review in accordance with Resolution 235 (WRC-15);

Topic	Responsible group	Action to be taken by the group	Contributing group
<p>Resolution 235 (WRC-15) Review of the spectrum use of the frequency band 470-960 MHz in Region 1</p>	<p>TG 6/1 Note: See Annex 9 to this Administrative Circular</p>	<p>resolves to invite ITU-R, after the 2019 World Radiocommunication Conference and in time for the 2023 World Radiocommunication Conference</p> <ol style="list-style-type: none"> 1 to review the spectrum use and study the spectrum needs of existing services within the frequency band 470-960 MHz in Region 1, in particular the spectrum requirements of the broadcasting and mobile, except aeronautical mobile, services, taking into account the relevant ITU Radiocommunication Sector (ITU-R) studies, Recommendations and Reports; 2 to carry out sharing and compatibility studies, as appropriate, in the frequency band 470-694 MHz in Region 1 between the broadcasting and mobile, except aeronautical mobile, services, taking into account relevant ITU-R studies, Recommendations and Reports; 3 to conduct sharing and compatibility studies, as appropriate, in order to provide relevant protection of systems of other existing services, <p>invites administrations to participate actively in the studies by submitting contributions to ITU-R, resolves to invite the 2023 World Radiocommunication Conference to consider, based on the results of studies above, provided that these studies are completed and approved by ITU-R, possible regulatory actions in the frequency band 470-694 MHz in Region 1, as appropriate, further invites ITU-R to ensure intersectoral collaboration with the ITU Telecommunication Development Sector (ITU-D) in the implementation of this Resolution.</p>	<p>WP 3K, WP 3M, WP 5A, WP 5B, WP 5C, WP 5D, WP 6A</p>

1.6 to consider, in accordance with Resolution 772 (WRC-19), regulatory provisions to facilitate radiocommunications for sub-orbital vehicles;

Topic	Responsible group	Action to be taken by the group	Contributing group
<p>Resolution 772 (WRC-19)</p> <p>Consideration of regulatory provisions to facilitate the introduction of sub-orbital vehicles</p>	<p>WP 5B</p> <p>Note: See relevant text in CPM23-1 meeting report (Annex 4 to this Administrative Circular) on how to facilitate the work related to satellite.</p>	<p>resolves to invite ITU-R</p> <ol style="list-style-type: none"> 1 to study spectrum needs for communications between stations on board sub-orbital vehicles and terrestrial/space stations providing functions such as, <i>inter alia</i>, voice/data communications, navigation, surveillance and TT&C; 2 to study appropriate modification, if any, to the Radio Regulations, excluding any new allocations or changes to the existing allocations in Article 5, to accommodate stations on board sub-orbital vehicles, whilst avoiding any impact on conventional space launch systems with the following objectives: <ul style="list-style-type: none"> – to determine the status of stations on sub-orbital vehicles, and study corresponding regulatory provisions to determine which existing radiocommunication services can be used by stations on sub-orbital vehicles, if necessary; – to determine the technical and regulatory conditions to allow some stations on board sub-orbital vehicles to operate under the aeronautical regulation and to be considered as earth stations or terrestrial stations even if a part of the flight occurs in space; – to facilitate radiocommunications that support aviation to safely integrate sub-orbital vehicles into the airspace and be interoperable with international civil aviation; – to define the relevant technical characteristics and protection criteria relevant for the studies to be undertaken in accordance with the bullet point below; – to conduct sharing and compatibility studies with incumbent services that are allocated on a primary basis in the same and adjacent frequency bands in order to avoid harmful interference to other radiocommunication services and to existing applications of the same service in which stations on board sub-orbital vehicles operate, having regard to the sub-orbital flight application scenarios; 3 to identify, as a result of the studies above, whether there is a need for access to additional spectrum that should be addressed after WRC-23 by a future competent conference, <p>invites ICAO</p> <p>to participate in the studies and provide to ITU the relevant technical characteristics required for the studies called for in <i>resolves to invite ITU-R</i>,</p> <p>invites the 2023 World Radiocommunication Conference</p> <p>to consider the results of the studies above and take the appropriate action,</p> <p>instructs the Director of the Radiocommunication Bureau</p> <p>to bring this Resolution to the attention of the relevant ITU-R study groups,</p> <p>invites administrations</p> <p>to participate actively in the studies by submitting contributions to ITU-R,</p> <p>instructs the Secretary-General</p> <p>to bring this Resolution to the attention of the United Nations Committee on the Peaceful Uses of Outer Space and ICAO and other international and regional organizations concerned.</p>	<p>WP 3M,</p> <p>WP 4A,</p> <p>WP 4C,</p> <p>WP 7B</p>

- 1.7 to consider a new aeronautical mobile-satellite (R) service (AMS(R)S) allocation in accordance with Resolution 428 (WRC-19) for both the Earth-to-space and space-to-Earth directions of aeronautical VHF communications in all or part of the frequency band 117.975-137 MHz, while preventing any undue constraints on existing VHF systems operating in the AM(R)S, the ARNS, and in adjacent frequency bands;

Topic	Responsible group	Action to be taken by the group	Contributing group
<p>Resolution 428 (WRC-19)</p> <p>Studies on a possible new allocation to the aeronautical mobile satellite (R) service within the frequency band 117.975-137 MHz in order to support aeronautical VHF communications in the Earth-to-space and space-to-Earth directions</p>	<p>WP 5B</p> <p>Note: See relevant text in CPM23-1 meeting report (Annex 4 to this Administrative Circular) on how to facilitate the work related to satellite.</p>	<p>resolves to invite ITU-R</p> <ol style="list-style-type: none"> 1 to define the relevant technical characteristics and to study, taking into account <i>considering c)</i> and taking into account No. 5.200, compatibility between potential new AMS(R)S systems that operate within the frequency band 117.975-137 MHz in the Earth-to-space and space-to-Earth directions and existing primary services in band and in adjacent frequency bands, while ensuring protection of systems using existing primary services in those frequency bands and not constraining planned usage of those systems; 2 to take into account the results of the studies, to provide technical and regulatory recommendations relative to a possible new allocation to AMS(R)S within the frequency band 117.975-137 MHz, taking into consideration the responsibility of ICAO in <i>noting b)</i>, <p>invites the 2023 World Radiocommunication Conference</p> <p>to consider the results of the studies and take appropriate actions, including possible primary allocation to AMS(R)S within the frequency band 117.975-137 MHz,</p> <p>invites Member States and Sector Members</p> <p>to participate actively in the studies and to submit characteristics of any current and planned systems to be studied, as appropriate,</p> <p>invites the International Civil Aviation Organization</p> <p>to participate in the studies by providing aeronautical operational requirements and relevant available technical characteristics to be taken into account in ITU-R studies and to take into account the sharing and compatibility conclusions at ITU-R in the SARPs to be developed for AMS(R)S,</p> <p>instructs the Secretary-General</p> <p>to bring this Resolution to the attention of ICAO.</p>	<p>WP 3M,</p> <p>WP 4C,</p> <p>WP 7B</p>

- 1.8 to consider, on the basis of ITU-R studies in accordance with Resolution 171 (WRC-19), appropriate regulatory actions, with a view to reviewing and, if necessary, revising Resolution 155 (Rev.WRC-19) and No. 5.484B to accommodate the use of fixed-satellite service (FSS) networks by control and non-payload communications of unmanned aircraft systems;

Topic	Responsible group	Action to be taken by the group	Contributing group
Resolution 171 (WRC-19) Review and possible revision of Resolution 155 (Rev.WRC-19) and No. 5.484B in the frequency bands to which they apply	WP 5B Note: See relevant text in CPM23-1 meeting report (Annex 4 to this Administrative Circular) on how to facilitate the work related to satellite.	resolves to invite ITU-R 1 to continue and complete in time for WRC-23 relevant studies of the technical, operational and regulatory aspects, based on the frequency bands mentioned in <i>resolves</i> 1 of Resolution 155 (Rev.WRC-19), in relation to the implementation of Resolution 155 (Rev.WRC-19), taking into account the progress obtained by ICAO in the completion of SARPs on the use of FSS for the UAS CNPC links; 2 to review No. 5.484B and Resolution 155 (Rev.WRC-19) taking into account the results of the above studies, resolves to invite WRC-23 to revise, if necessary, No. 5.484B and Resolution 155 (Rev.WRC-19) and take other necessary actions, as appropriate, on the basis of the studies conducted under Resolution 155 (Rev.WRC-19) and <i>resolves to invite ITU-R</i> above, instructs the Secretary-General to bring this Resolution to the attention of the Secretary-General of ICAO.	WP 4A, WP 4B

- 1.9 to review Appendix 27 of the Radio Regulations and consider appropriate regulatory actions and updates based on ITU-R studies, in order to accommodate digital technologies for commercial aviation safety-of-life applications in existing HF bands allocated to the aeronautical mobile (route) service and ensure coexistence of current HF systems alongside modernized HF systems, in accordance with Resolution 429 (WRC-19);

Topic	Responsible group	Action to be taken by the group	Contributing group
Resolution 429 (WRC-19) Consideration of regulatory provisions for updating Appendix 27 of the Radio Regulations in support of aeronautical HF modernization	WP 5B	resolves to invite ITU-R 1 to identify any necessary modifications to Appendix 27 for the aeronautical mobile (route) service between 2 850 and 22 000 kHz noting <i>recognizing c</i>); 2 to identify any necessary transition arrangements for the introduction of new digital aeronautical wideband HF systems and any consequential changes to Appendix 27; 3 to recommend how new digital aeronautical wideband HF systems can be introduced while ensuring compliance with safety requirements and <i>recognizing e</i>); 4 to define the relevant technical characteristics and to conduct any necessary sharing and compatibility studies, taking account <i>noting e</i>), with incumbent services that are allocated on a primary basis in the same or adjacent frequency bands to avoid harmful interference in accordance with <i>recognizing e</i>); 5 to complete studies in time for WRC-23, resolves to invite WRC-23 to consider necessary changes to Appendix 27, on the basis of the studies conducted under <i>resolves to invite ITU-R</i> above, instructs the Secretary-General to bring this Resolution to the attention of the International Civil Aviation Organization, invites the International Civil Aviation Organization to participate actively by providing aeronautical operational requirements and relevant available technical characteristics to be taken into account in ITU-R studies.	WP 3L, WP 3M, WP 6A

1.10 to conduct studies on spectrum needs, coexistence with radiocommunication services and regulatory measures for possible new allocations for the aeronautical mobile service for the use of non-safety aeronautical mobile applications, in accordance with Resolution 430 (WRC-19);

Topic	Responsible group	Action to be taken by the group	Contributing group
Resolution 430 (WRC-19) Studies on frequency-related matters, including possible additional allocations, for the possible introduction of new non-safety aeronautical mobile applications	WP 5B	<p>resolves to invite ITU-R to conduct, and complete in time for WRC-23:</p> <ol style="list-style-type: none"> studies on spectrum needs for new non-safety aeronautical mobile applications for air-to-air, ground-to-air and air-to-ground communications of aircraft systems; sharing and compatibility studies in the frequency band 22-22.21 GHz, already allocated on a primary basis to the mobile, except aeronautical mobile, service, in order to evaluate the possible revision or deletion of the “except aeronautical mobile” restriction while ensuring the protection of primary services in the considered frequency bands and, as appropriate, in adjacent frequency bands; sharing and compatibility studies on possible new primary allocations to the aeronautical mobile service for non-safety aeronautical applications in the frequency band 15.4-15.7 GHz, while ensuring the protection of primary services in the considered frequency bands and, as appropriate, adjacent frequency bands; definition of appropriate protection for passive services and radio astronomy allocated in adjacent bands from unwanted emission of AMS, <p>invites the 2023 World Radiocommunication Conference to review the results of the ITU-R studies and take appropriate actions,</p> <p>invites administrations to participate actively in the studies by submitting contributions to ITU-R.</p> 	WP 3K, WP 3M, WP 4A, WP 5A, WP 5C, WP 7C, WP 7D

1.11 to consider possible regulatory actions to support the modernization of the Global Maritime Distress and Safety System and the implementation of e-navigation, in accordance with Resolution 361 (Rev.WRC-19);

Topic	Responsible group	Action to be taken by the group	Contributing group
Resolution 361 (Rev.WRC-19) Consideration of possible regulatory actions to support the modernization of the Global Maritime Distress and Safety System and the implementation of e-navigation	WP 5B Note: See relevant text in CPM23-1 meeting report (Annex 4 to this Administrative Circular)	<p>resolves to invite the 2023 World Radiocommunication Conference</p> <ol style="list-style-type: none"> to consider possible regulatory actions, based on the ITU Radiocommunication Sector (ITU-R) studies, taking into consideration the activities of IMO, as well as information and requirements provided by IMO, to support GMDSS modernization; to consider possible regulatory actions, including spectrum allocations based on the ITU Radiocommunication Sector (ITU-R) studies, for the maritime mobile service, supporting e-navigation; to consider regulatory provisions, if any, based on the results of ITU-R studies, referred to in <i>invites ITU-R</i> below, to support the introduction of additional satellite systems into the GMDSS, <p>invites ITU-R to conduct studies taking into consideration the activities of IMO and other relevant international organizations, in order to determine spectrum needs and regulatory actions to support GMDSS modernization and the implementation of e-navigation, including the introduction of additional satellite systems into the GMDSS,</p> <p>instructs the Secretary-General to bring this Resolution to the attention of IMO and other international and regional organizations concerned.</p> 	WP 4C (responsible for developing studies and draft CPM text on resolves to invite the 2023 World Radiocommunication Conference 3 and sending this to WP 5B)

1.12 to conduct, and complete in time for WRC-23, studies for a possible new secondary allocation to the Earth exploration-satellite (active) service for spaceborne radar sounders within the range of frequencies around 45 MHz, taking into account the protection of incumbent services, including in adjacent bands, in accordance with Resolution 656 (Rev.WRC-19);

Topic	Responsible group	Action to be taken by the group	Contributing group
Resolution 656 (Rev.WRC-19) Possible secondary allocation to the Earth exploration-satellite service (active) for spaceborne radar sounders in the range of frequencies around 45 MHz	WP 7C	<p>resolves to invite the 2023 World Radiocommunication Conference</p> <p>to consider the results of studies on spectrum needs for a possible new secondary allocation to the Earth exploration-satellite (active) service for spaceborne radar sounders within the range of frequencies around 45 MHz, taking into account the protection of incumbent services, and take appropriate action,</p> <p>invites ITU-R</p> <p>to conduct studies on spectrum needs and sharing studies between the Earth exploration-satellite (active) service and the radiolocation, fixed, mobile, broadcasting, amateur and space research services in the 40-50 MHz frequency range and in adjacent bands,</p> <p>invites administrations</p> <p>to participate actively in the studies by submitting contributions to the ITU Radiocommunication Sector,</p> <p>instructs the Secretary-General</p> <p>to bring this Resolution to the attention of international and regional organizations concerned.</p>	WP 3K, WP 3L, WP 3M, WP 5A, WP 5B, WP 6A

1.13 to consider a possible upgrade of the allocation of the frequency band 14.8-15.35 GHz to the space research service, in accordance with Resolution 661 (WRC-19);

Topic	Responsible group	Action to be taken by the group	Contributing group
Resolution 661 (WRC-19) Examination of a possible upgrade to primary status of the secondary allocation to the space research service in the frequency band 14.8-15.35 GHz	WP 7B	<p>resolves to invite ITU-R</p> <ol style="list-style-type: none"> 1 to investigate and identify all relevant scenarios mentioned in <i>recognizing a) to c)</i> that need to be considered in compatibility and sharing studies, taking into account the latest relevant ITU-R Recommendations; 2 to conduct and complete in time for WRC-23 sharing and compatibility studies in order to determine the feasibility of upgrading the SRS allocation to primary status in the frequency band 14.8-15.35 GHz, with a view to ensuring protection of the primary service in <i>considering a) and d)</i> and taking into account <i>recognizing e)</i>; 3 to determine the technical and regulatory conditions according to the results of studies mentioned in <i>resolves to invite ITU-R 2</i>, <p>resolves to invite administrations</p> <p>to participate actively in the studies and provide the technical and operational characteristics of the systems involved by submitting contributions to ITU-R,</p> <p>invites the 2023 World Radiocommunication Conference</p> <p>to examine, on the basis of the results of studies by the ITU Radiocommunication Sector, the possibility of upgrading the secondary status of the allocation to the SRS to primary status in the frequency band 14.8-15.35 GHz, taking into account studies in <i>resolves to invite ITU-R 2</i> and the considerations in <i>resolves to invite ITU-R 3</i>.</p>	WP 3M, WP 5A, WP 5C, WP 7C, WP 7D

1.14 to review and consider possible adjustments of the existing or possible new primary frequency allocations to EESS (passive) in the frequency range 231.5-252 GHz, to ensure alignment with more up-to-date remote-sensing observation requirements, in accordance with Resolution 662 (WRC-19);

Topic	Responsible group	Action to be taken by the group	Contributing group
Resolution 662 (WRC-19) Review of frequency allocations for EESS (passive) in the frequency range 231.5-252 GHz and consider possible adjustment according to observation requirements of passive microwave sensors	WP 7C	<p>resolves to invite ITU-R</p> <ol style="list-style-type: none"> 1 to review the existing primary allocations to the EESS (passive) in the frequency range 231.5-252 GHz in order to analyse if these allocations are aligned with observation requirements of passive microwave sensors; 2 to study the impact that any change to the EESS (passive) allocations in the frequency range 231.5-252 GHz might have on the other primary services in these frequency bands; 3 to study, as appropriate, possible adjustments to the EESS (passive) allocations in the frequency range 231.5-252 GHz, taking into account the results under <i>resolves to invite ITU-R 1</i> above, <p>invites the 2023 World Radiocommunication Conference</p> <p>to review the results of these studies with a view to adjusting existing allocations or adding possible new allocations, as appropriate, to EESS (passive) in the frequency range 231.5-252 GHz without unduly constraining the other primary services currently allocated in this frequency range,</p> <p>invites administrations</p> <p>to participate actively in the studies by submitting contributions to ITU-R,</p> <p>instructs the Secretary-General</p> <p>to bring this Resolution to the attention of the international and regional organizations concerned.</p>	WP 3J, WP 3M, WP 4A, WP 4C, WP 5A, WP 5B, WP 5C

1.15 to harmonize the use of the frequency band 12.75-13.25 GHz (Earth-to-space) by earth stations on aircraft and vessels communicating with geostationary space stations in the fixed-satellite service globally, in accordance with Resolution 172 (WRC-19);

Topic	Responsible group	Action to be taken by the group	Contributing group
Resolution 172 (WRC-19) Operation of earth stations on aircraft and vessels communicating with geostationary space stations in the fixed-satellite service in the frequency band 12.75-13.25 GHz (Earth-to-space)	WP 4A	<p>resolves to invite ITU-R</p> <ol style="list-style-type: none"> 1 to study the technical and operational characteristics and user requirements of earth stations on aircraft and vessels that communicate or plan to communicate with GSO space stations in the FSS in the frequency band 12.75-13.25 GHz (Earth-to-space) under the envelope of Appendix 30B Article 6 recorded in the List or MIFR with favourable finding only and examination of related existing regulatory provisions, subject to <i>recognizing a</i>); 2 to study the sharing and compatibility issues between earth stations on aircraft and vessels communicating with GSO space stations in the FSS and current and planned stations of existing services in <i>considering a</i>) as well as services in bands adjacent to those, to ensure protection of, and not impose undue constraints on, those services and their future development, taking into account the provisions of Appendix 30B; 3 to study the responsibility of the entities involved in the operation of the earth stations on aircraft and vessels in this Resolution; <p><i>3b</i>isto develop the criteria to ensure that earth stations on aircraft and vessels as a new application of FSS in this frequency band shall not claim more protection or cause more interference than filed earth stations in Appendix 30B;</p>	WP 3M, WP 5A, WP 5B, WP 5C

Topic	Responsible group	Action to be taken by the group	Contributing group
		<p>4 to develop the technical conditions and regulatory provisions for the harmonized operation of earth stations on aircraft and vessels communicating with GSO space stations in the FSS operating in the frequency band 12.75-13.25 GHz (Earth-to-space), considering the results of the studies outlined in <i>resolves to invite ITU-R 1 and 2</i>, and in particular without affecting the Appendix 30B Plan;</p> <p>5 to ensure that the operation of earth stations on aircraft and vessels in the frequency band 12.75-13.25 GHz under Appendix 30B shall not adversely affect the criteria in <i>recognizing j</i>), including the cumulative effect of multiple earth stations on aircraft and vessels;</p> <p>6 to ensure that the use of the frequency band 12.75-13.25 GHz (Earth-to-space) by earth stations on aircraft and vessels shall not limit the access of other administrations to their national resources in Appendix 30B as well as implementation of Resolution 170 (WRC-19);</p> <p>7 to ensure that the use of earth stations on aircraft and vessels in this Resolution would not result in any additional status than the GSO network with which these stations communicate;</p> <p>8 to ensure that the results of ITU-R studies are agreed by Member States taking into account the required consensus on this matter;</p> <p>9 to complete studies in time for WRC-23,</p> <p>further resolves that earth stations on aircraft and vessels addressed by this Resolution:</p> <p><i>a)</i> shall not be used or relied upon for safety-of-life applications;</p> <p><i>b)</i> shall not result in changes or restrictions to the existing Plan allotments and List assignments made under the Appendix 30B, and their future development,</p> <p>resolves to invite WRC-23 to consider the results of the above studies in <i>resolves to invite ITU-R</i> and take necessary actions, as appropriate,</p> <p>invites administrations to participate actively in the studies by submitting contributions to ITU-R.</p>	

1.16 to study and develop technical, operational and regulatory measures, as appropriate, to facilitate the use of the frequency bands 17.7-18.6 GHz and 18.8-19.3 GHz and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (Earth-to-space) by non-GSO FSS earth stations in motion, while ensuring due protection of existing services in those frequency bands, in accordance with Resolution 173 (WRC-19);

Topic	Responsible group	Action to be taken by the group	Contributing group
<p>Resolution 173 (WRC-19) Use of the frequency bands 17.7-18.6 GHz and 18.8-19.3 GHz and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (Earth-to-space) by earth stations in motion communicating with non-geostationary space stations in the fixed-satellite service</p>	<p>WP 4A</p>	<p>resolves to invite ITU-R</p> <ol style="list-style-type: none"> 1 to study the technical and operational characteristics and user requirements of the different types of earth stations in motion that plan to operate within non-GSO FSS systems in the frequency bands 17.7-18.6 GHz and 18.8-19.3 GHz and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (Earth-to-space), or parts thereof; 2 to study sharing and compatibility between earth stations in motion operating with non-GSO FSS systems and current and planned stations of primary services allocated in the frequency bands 17.7-18.6 GHz and 18.8-19.3 GHz and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (Earth-to-space), or parts thereof, to ensure protection of, and not impose additional constraints on, GSO systems and other services, including terrestrial services, in those frequency bands and in adjacent bands, including passive services; 3 to develop the technical and regulatory provisions for the operation of aeronautical and maritime earth stations in motion with non-GSO FSS systems, taking into account the results of studies under <i>resolves to invite ITU-R</i> 1 and 2; 4 to ensure that the technical and operational measures and the possible regulatory changes established in accordance with this Resolution shall not affect the relevant provisions related to the protection of GSO networks from non-GSO FSS systems; 5 to ensure that the results of ITU-R studies are agreed by Member States by consensus; 6 to complete studies in time for WRC-23, <p>resolves to invite WRC-23 to review the results of these studies and take appropriate action.</p>	<p>WP 3M, WP 4C, WP 5A, WP 5B, WP 5C, WP 7B</p>

1.17 to determine and carry out, on the basis of the ITU-R studies in accordance with Resolution 773 (WRC-19), the appropriate regulatory actions for the provision of inter-satellite links in specific frequency bands, or portions thereof, by adding an inter-satellite service allocation where appropriate;

Topic	Responsible group	Action to be taken by the group	Contributing group
<p>Resolution 773 (WRC-19) Study of technical and operational issues, and regulatory provisions for satellite-to-satellite links in the frequency bands 11.7-12.7 GHz, 18.1-18.6 GHz, 18.8-20.2 GHz and 27.5-30 GHz</p>	<p>WP 4A</p>	<p>resolves to invite ITU-R</p> <ol style="list-style-type: none"> 1 to develop the technical and operational characteristics of different types of space stations that plan satellite-to-satellite transmissions in the frequency bands 11.7-12.7 GHz, 18.1-18.6 GHz, 18.8-20.2 GHz and 27.5-30 GHz, taking into account <i>considering e)</i> above; 2 to study the technical and operational characteristics, including spectrum requirements, off-axis e.i.r.p. values and out-of-band emission limits, for transmissions between space stations in the frequency bands 11.7-12.7 GHz, 18.1-18.6 GHz, 18.8-20.2 GHz and 27.5-30 GHz; 3 to study sharing and compatibility between satellite-to-satellite links, intending to operate between space stations in the frequency bands 11.7-12.7 GHz, 18.1-18.6 GHz, 18.8-20.2 GHz and 27.5-30 GHz, and current and planned stations of the FSS and other existing services allocated in same frequency bands and adjacent bands, including passive services, with a view to ensuring protection of the primary services in <i>recognizing further i)</i>; 4 to develop, for different types of space stations, the technical conditions and regulatory provisions for satellite-to-satellite operations in the frequency bands 11.7-12.7 GHz, 18.1-18.6 GHz, 18.8-20.2 GHz and 27.5-30 GHz, or portions thereof, including new ISS allocations, as appropriate, taking into account the results of the studies above, <p>invites administrations to participate in the studies and to provide input contributions,</p> <p>resolves to invite the 2023 World Radiocommunication Conference to consider the results of the above studies and take necessary regulatory actions, as appropriate.</p> 	<p>WP 3M, WP 4B, WP 4C, WP 5A, WP 5B, WP 5C, WP 7B</p>

1.18 to consider studies relating to spectrum needs and potential new allocations to the mobile-satellite service for future development of narrowband mobile-satellite systems, in accordance with Resolution 248 (WRC-19);

Topic	Responsible group	Action to be taken by the group	Contributing group
<p>Resolution 248 (WRC-19) Studies relating to spectrum needs and potential new allocations to the mobile-satellite service in the frequency bands 1 695-1 710 MHz, 2 010-2 025 MHz, 3 300-3 315 MHz and 3 385-3 400 MHz for future development of narrowband mobile-satellite systems</p>	<p>WP 4C</p>	<p>resolves to invite ITU-R</p> <ol style="list-style-type: none"> 1 to conduct studies on spectrum and operational requirements as well as system characteristics of low-data rate systems for the collection of data from, and management of, terrestrial devices in the MSS as described in <i>considering a)</i> and limited to the basic characteristics in <i>recognizing c)</i>; 2 to conduct sharing and compatibility studies with existing primary services to determine the suitability of new allocations to the MSS, with a view to protecting the primary services, in the following frequency bands and adjacent frequency bands: <ol style="list-style-type: none"> 1 695-1 710 MHz in Region 2, 2 010-2 025 MHz in Region 1, 3 300-3 315 MHz, 3 385-3 400 MHz in Region 2; 3 to consider possible new primary or secondary allocations, with the necessary technical limitations, taking into account the characteristics described in <i>recognizing c)</i>, to the MSS for non-GSO satellites operating low-data rate systems for the collection of data from, and management of, terrestrial devices based on the result of sharing and compatibility studies, while ensuring the protection of existing primary services in those frequency bands, and adjacent bands, without causing undue constraints on their further development, <p>resolves to invite WRC-23 to determine, on the basis of the studies conducted under the <i>resolves to invite ITU-R</i> above, appropriate regulatory actions,</p> <p>invites administrations to participate in the studies by submitting contributions to ITU-R.</p>	<p>WP 3M, WP 4A, WP 4B, WP 5A, WP 5B, WP 5C, WP 5D, WP 7B</p>

1.19 to consider a new primary allocation to the fixed-satellite service in the space-to-Earth direction in the frequency band 17.3-17.7 GHz in Region 2, while protecting existing primary services in the band, in accordance with Resolution 174 (WRC-19);

Topic	Responsible group	Action to be taken by the group	Contributing group
<p>Resolution 174 (WRC-19) Primary allocation to the fixed-satellite service in the space-to-Earth direction in the frequency band 17.3-17.7 GHz in Region 2</p>	<p>WP 4A</p>	<p>resolves that the studies referred in <i>invites ITU-R</i> below shall protect radiocommunication services to which the band is allocated on primary basis, in particular assignments contained in Appendix 30A of the Radio Regulations, invites ITU-R to conduct, and complete in time for WRC-23, sharing and compatibility studies between the fixed-satellite service (space-to-Earth) and the broadcasting-satellite service (space-to-Earth) and between the fixed-satellite service (space-to-Earth) and the fixed-satellite service (Earth-to-space), in order to consider possible new primary allocation to the fixed-satellite service (space-to-Earth) in the frequency band 17.3-17.7 GHz for Region 2, while ensuring the protection of existing primary allocations in the same and adjacent bands, as appropriate, and without imposing any additional constraints on existing allocations to the broadcasting-satellite service (space-to-Earth) and the fixed-satellite service (Earth-to-space), invites WRC-23 to consider the results of the above studies and take necessary actions, as appropriate, invites administrations to participate actively in the studies and provide the technical and operational characteristics of the systems involved by submitting contributions to ITU-R.</p>	<p>WP 3M, WP 5A, WP 5B, WP 5C, WP 7B</p>

- 2 to examine the revised ITU-R 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;

Topic	Responsible group	Action to be taken by the group	Contributing group
<p>Resolution 27 (Rev.WRC-19)</p> <p>Use of incorporation by reference in the Radio Regulations</p>	<p>CPM23-2</p>	<p>resolves</p> <ol style="list-style-type: none"> 1 that for the purposes of the Radio Regulations, the term “incorporation by reference” shall only apply to those references intended to be mandatory; 2 that the text incorporated by reference shall have the same treaty status as the Radio Regulations themselves; 3 that the reference shall be explicit, specifying the specific part of the text (if appropriate) and the version or issue number; 4 that, where a mandatory reference to an ITU-R Recommendation, or parts thereof, is included in the <i>resolves</i> of a WRC Resolution, which is itself cited in a provision or footnote of the Radio Regulations using mandatory language (i.e. “shall”), the ITU-R Recommendation or parts thereof shall also be considered as incorporated by reference; 5 that texts which are of a non-mandatory nature or which refer to other texts of a non-mandatory nature shall not be considered for incorporation by reference; 6 that when considering the introduction of new cases of incorporation by reference, such incorporation shall be kept to a minimum and made by applying the following criteria: <ol style="list-style-type: none"> 6.1 only texts which are relevant to a specific WRC agenda item may be considered; 6.2 where the relevant texts are brief, the referenced material should be placed in the body of the Radio Regulations rather than using incorporation by reference; 6.3 the guidance contained in Annex 1 to this Resolution shall be applied in order to ensure that the correct method of reference for the intended purpose is employed; 7 that the text to be incorporated by reference shall be submitted for adoption by a competent WRC and the procedure described in Annex 2 to this Resolution shall be applied for approving the incorporation by reference of ITU-R Recommendations or parts thereof; 8 that existing references to ITU-R Recommendations shall be reviewed to clarify whether the reference is mandatory or non-mandatory in accordance with Annex 1 to this Resolution; 9 that ITU-R Recommendations, or parts thereof, incorporated by reference at the conclusion of each WRC, and a cross-reference list of the regulatory provisions, including footnotes and Resolutions, incorporating such ITU-R Recommendations by reference, shall be collated and published in a volume of the Radio Regulations (see Annex 2 to this Resolution); 10 that if, between WRCs, a text incorporated by reference (e.g. an ITU-R Recommendation) is updated, the reference in the Radio Regulations shall continue to apply to the earlier version incorporated by reference until such time as a competent WRC agrees to incorporate the new version; the mechanism for considering such a step is given in the <i>further resolves</i> part of this Resolution, 	<p>–</p>

Topic	Responsible group	Action to be taken by the group	Contributing group
		<p>further resolves</p> <ol style="list-style-type: none"> 1 that each radiocommunication assembly shall communicate to the next WRC a list of the ITU-R Recommendations containing text incorporated by reference in the Radio Regulations which have been revised and approved during the elapsed study period; 2 that, on this basis, WRC is invited to examine those revised ITU-R Recommendations, and decide whether or not to update the corresponding references in the Radio Regulations; 3 that, if WRC decides not to update the corresponding references, the currently referenced version shall be maintained in the Radio Regulations; 4 to invite future WRCs to include a standing agenda item on examination of the revised ITU-R Recommendations in accordance with <i>further resolves</i> 1 and 2 of this Resolution, <p>instructs the Director of the Radiocommunication Bureau</p> <ol style="list-style-type: none"> 1 to bring this Resolution to the attention of the Radiocommunication Assembly and the ITU-R study groups; 2 to identify the provisions and footnotes of the Radio Regulations containing references to ITU-R Recommendations and make suggestions on any further action to the second session of the Conference Preparatory Meeting (CPM) for its consideration and inclusion in the CPM Report; 3 to identify the provisions and footnotes of the Radio Regulations containing references to WRC Resolutions that contain references to ITU-R Recommendations, and make suggestions on any further action to the second session of CPM for its consideration and inclusion in the CPM Report; 4 to provide the second session of CPM with a list, for inclusion in the CPM Report, of those ITU-R Recommendations containing texts incorporated by reference that have been revised or approved since the previous WRC, or that may be revised in time for the next WRC, <p>invites administrations</p> <ol style="list-style-type: none"> 1 to submit proposals to future conferences, taking into account the CPM Report, in order to clarify the status of references, where ambiguities remain regarding the mandatory or non-mandatory status of the references in question, with a view to amending those references: <ol style="list-style-type: none"> i) that appear to be of a mandatory nature, identifying such references as being incorporated by reference by using clear linking language in accordance with Annex 1; ii) that are of a non-mandatory character, so as to refer to “the most recent version” of the Recommendations; 2 to participate actively in the work of the radiocommunication study groups and the Radiocommunication Assembly on revision of those Recommendations to which mandatory references are made in the Radio Regulations; 3 to examine any indicated revisions of ITU-R Recommendations containing text incorporated by reference and to prepare proposals on possible updating of relevant references in the Radio Regulations. 	

3. to consider such consequential changes and amendments to the Radio Regulations as may be necessitated by the decisions of the conference;
4. 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;

Topic	Responsible group	Action to be taken by the group	Contributing group
<p>Resolution 95 (Rev.WRC-19)</p> <p>General review of the Resolutions and Recommendations of world administrative radio conferences and world radiocommunication conferences</p>	<p>CPM23-2</p>	<p>resolves</p> <p>that recommended agendas for future world radiocommunication conferences should include a standing agenda item to review the Resolutions and Recommendations of previous conferences that are not related to any other agenda item of the conference with a view to:</p> <ul style="list-style-type: none"> – abrogating those Resolutions and Recommendations that have served their purpose or have become no longer necessary; – reviewing the need for those Resolutions and Recommendations, or parts thereof, requesting ITU-R studies on which no progress has been made during the last two periods between conferences; – updating and modifying Resolutions and Recommendations, or parts thereof, that have become out of date, and to correct obvious omissions, inconsistencies, ambiguities or editorial errors and effect any necessary alignment, <p>invites future competent world radiocommunication conferences</p> <ol style="list-style-type: none"> 1 to review the Resolutions and Recommendations of previous conferences that are related to the agenda items of the conference, other than the standing agenda item mentioned in <i>resolves</i>, under those specific agenda items, with a view to their possible revision, replacement or abrogation, and to take appropriate action; 2 at the beginning of the conference, to determine which committee within the conference has the primary responsibility to review each of the Resolutions and Recommendations of previous conferences, <p>instructs the Director of the Radiocommunication Bureau</p> <ol style="list-style-type: none"> 1 to conduct a general review of the Resolutions and Recommendations of previous conferences and, after consultation with the Radiocommunication Advisory Group and the Chairmen and Vice-Chairmen of the radiocommunication study groups, submit a report to the second session of the Conference Preparatory Meeting (CPM) in respect of <i>resolves</i> and <i>invites future competent world radiocommunication conferences</i> 1, including an indication of any associated agenda items; 2 to include in the above report, with the cooperation of the chairmen of the radiocommunication study groups, the progress reports of ITU-R studies on the issues which have been requested by the Resolutions and Recommendations of previous conferences, but which are not placed on the agendas of the forthcoming two conferences, <p>invites administrations</p> <p>to submit contributions on the implementation of this Resolution to the second session of CPM and the conference,</p> <p>invites the Conference Preparatory Meeting</p> <p>to include, in its Report, the results of the general review of the Resolutions and Recommendations of previous conferences, based on the contributions by administrations to the second session of CPM and the above-mentioned Report of the Director, in order to facilitate the follow-up by the conference.</p>	<p>–</p>

5. to review, and take appropriate action on, the Report from the Radiocommunication Assembly submitted in accordance with Nos. 135 and 136 of the Convention;
6. to identify those items requiring urgent action by the radiocommunication study groups in preparation for the next world radiocommunication conference;
7. 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;

Topic	Responsible group	Action to be taken by the group	Contributing group
Resolution 86 (Rev.WRC-07) Implementation of Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference	WP 4A	<p>resolves to invite future world radiocommunication conferences</p> <ol style="list-style-type: none"> 1 to consider any proposals which deal with deficiencies and improvements in the advance publication, coordination, notification and recording procedures of the Radio Regulations for frequency assignments pertaining to space services which have either been identified by the Board and included in the Rules of Procedure or which have been identified by administrations or by the Radiocommunication Bureau, as appropriate; 2 to ensure that these procedures, and the related appendices of the Radio Regulations reflect the latest technologies, as far as possible, <p>invites administrations</p> <p>to consider, in preparing for PP-10, appropriate action with regard to Resolution 86 (Rev. Marrakesh, 2002).</p>	—

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-19);

Topic	Responsible group	Action to be taken by the group	Contributing group
Resolution 26 (Rev.WRC-19) Footnotes to the Table of Frequency Allocations in Article 5 of the Radio Regulations	Outside scope of CPM23-2	<p>resolves</p> <ol style="list-style-type: none"> 1 that, wherever possible, footnotes to the Table of Frequency Allocations should be confined to altering, limiting or otherwise changing the relevant allocations rather than dealing with the operation of stations, assignment of frequencies or other matters; 2 that the Table of Frequency Allocations should include only those footnotes which have international implications for the use of the radio-frequency spectrum; 3 that new footnotes to the Table of Frequency Allocations should only be adopted in order to: <ol style="list-style-type: none"> a) achieve flexibility in the Table of Frequency Allocations; b) protect the relevant allocations in the body of the Table and in other footnotes in accordance with Section II of Article 5; c) introduce either transitional or permanent restrictions on a new service to achieve compatibility; or d) meet the specific requirements of a country or area when it is impracticable to satisfy such needs otherwise within the Table of Frequency Allocations; 4 that footnotes serving a common purpose should be in a common format, and, where possible, be grouped into a single footnote with appropriate references to the relevant frequency bands, 	—

Topic	Responsible group	Action to be taken by the group	Contributing group
		<p>further resolves</p> <ol style="list-style-type: none"> 1 that any addition of a new footnote or modification of an existing footnote should be considered by a WRC only when: <ol style="list-style-type: none"> a) the agenda of that WRC explicitly includes the frequency band to which the proposed additional or modified footnote relates; or b) the frequency bands to which the desired additions or modifications of the footnote belong are considered during WRC and WRC decides to make a change in those bands; or c) the addition or modification of footnotes is specifically included in the agenda of WRC as a result of the consideration of proposals submitted by one or more interested administration(s); 2 that recommended agendas for future WRCs should include a standing agenda item which would allow for the consideration of proposals by administrations for deletion of country footnotes, or country names in footnotes, if no longer required; 3 that in cases not covered by <i>further resolves</i> 1 and 2, proposals for new footnotes or modification of existing footnotes could exceptionally be considered by a WRC if they concern corrections of obvious omissions, inconsistencies, ambiguities or editorial errors and have been submitted to ITU as stipulated in No. 40 of the General Rules of conferences, assemblies and meetings of the Union (Antalya, 2006), <p>urges administrations</p> <ol style="list-style-type: none"> 1 to review footnotes periodically and to propose the deletion of their country footnotes or of their country names from footnotes, as appropriate; 2 to take account of the <i>further resolves</i> above in making proposals to WRCs in relation with footnotes or country names in 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-19:
- a) In accordance with Resolution 657 (Rev.WRC-19), review the results of studies relating to the technical and operational characteristics, spectrum requirements and appropriate radio service designations for space weather sensors with a view to describing appropriate recognition and protection in the Radio Regulations without placing additional constraints on incumbent services;

Topic	Responsible group	Action to be taken by the group	Contributing group
<p>Resolution 657 (Rev.WRC-19)</p> <p>Protection of radio spectrum-reliant space weather sensors used for global prediction and warnings</p>	<p>WP 7C</p>	<p>resolves to invite ITU-R</p> <ol style="list-style-type: none"> 1 to identify, in time for WRC-23, and based on existing and possible further ITU-R studies on the technical and operational characteristics, specific space weather sensors which need to be protected by appropriate regulation, including: <ul style="list-style-type: none"> – to determine if receive-only space weather sensors shall be designated as applications of the Metajds service; – to determine the appropriate radiocommunication service, if any, for cases where it is determined that receive-only space weather sensors do not fall under the Metajds service; 2 to conduct, in time for WRC-23, any necessary sharing studies with incumbent systems operating in frequency bands used by space weather sensors with the objective of determining potential regulatory provisions that can be provided to receive-only operational space weather sensors for their appropriate recognition in the Radio Regulations, while not placing additional constraints on incumbent services; 3 to develop potential solutions to describe in the Radio Regulations in Articles 1 and 4, and/or as a WRC resolution, if deemed appropriate, for consideration by WRC-23, space weather sensor systems and their corresponding usage, as well as protection requirements for receive-only space weather sensors; 4 to conduct studies, in time for WRC-23, on the technical and operational characteristics of active space weather sensors and conduct necessary sharing studies with incumbent systems operating in frequency bands used by active space weather sensors, with the objective of determining the appropriate radiocommunication service for those sensors, <p>instructs the Director of the Radiocommunication Bureau</p> <p>to report on the results of the ITU-R studies to WRC-23,</p> <p>invites administrations</p> <p>to participate actively in the studies and provide the technical and operational characteristics of the systems involved by submitting contributions to ITU-R,</p> <p>instructs the Secretary-General</p> <p>to bring this Resolution to the attention of the World Meteorological Organization (WMO) and other international and regional organizations concerned.</p>	<p>WP 1B, WP 3J, WP 3K, WP 3L, WP 3M, WP 5A, WP 5B, WP 5C, WP 6A, WP 7D</p>

- b) **Review of the amateur service and the amateur-satellite service allocations in the frequency band 1 240-1 300 MHz to determine if additional measures are required to ensure protection of the radionavigation-satellite (space-to-Earth) service operating in the same band in accordance with Resolution 774 (WRC-19);**

Topic	Responsible group	Action to be taken by the group	Contributing group
Resolution 774 (WRC-19) Studies on technical and operational measures to be applied in the frequency band 1 240-1 300 MHz to ensure the protection of the radionavigation-satellite service (space-to-Earth)	WP 5A	resolves to invite ITU-R 1 to perform the detailed review of the different systems and applications used in the amateur service and amateur-satellite service allocations within the frequency band 1 240-1 300 MHz; 2 taking into account the results of the above review, to study possible technical and operational measures to ensure the protection of RNSS (space-to-Earth) receivers from the amateur and amateur-satellite services within the frequency band 1 240-1 300 MHz, without considering the removal of these amateur and amateur-satellite services allocations, instructs the Director of the Radiocommunication Bureau to include the results of these studies in his Report to WRC-23 for the purpose of considering appropriate actions in response to <i>resolves to invite ITU-R</i> above.	WP 3M, WP 4C (responsible for developing studies on resolves to invite ITU R 2 and sending this to WP 5A)

- c) **Study the use of International Mobile Telecommunication system for fixed wireless broadband in the frequency bands allocated to the fixed services on primary basis, in accordance with Resolution 175 (WRC-19);**

Topic	Responsible group	Action to be taken by the group	Contributing group
Resolution 175 (WRC-19) Use of International Mobile Telecommunication systems for fixed wireless broadband in the frequency bands allocated to the fixed service on primary basis	WP 5A and WP 5C Note: This is a joint activity and a joint plenary may be held if required. WP 5A will provide the draft text on the results of studies to the CPM Chapter co-Rapporteurs.	resolves to invite ITU-R to conduct any necessary studies on the use of International Mobile Telecommunication systems for fixed wireless broadband in the frequency bands allocated to the fixed service on primary basis, taking into account the relevant ITU-R studies, Handbooks, Recommendations and Reports, instructs the Director of the Radiocommunication Bureau to report to WRC-23 on the results of these studies, invites administrations to participate in these studies in the process of preparation for WRC-23.	WP 1B, WP 4A, WP 4C, WP 5D, WP 6A, WP 7B, WP 7C, WP 7D

d) Protection of EESS (passive) in the frequency band 36-37 GHz from non-GSO FSS space stations;

Topic	Responsible group	Action to be taken by the group	Contributing group
See WRC-19 Document 535 , 2 nd section of the Annex	WP 7C	<p>Protection of EESS (passive) in the frequency band 36-37 GHz</p> <p>Under studies considered for WRC-19 agenda item 1.6, a preliminary study on the protection of EESS (passive) sensors operating in the 36-37 GHz was submitted to the ITU-R. This preliminary study indicated that it may be necessary to not exceed an out-of-band e.i.r.p. of –34 dBW/100 MHz, for all angles greater than 71.4 degrees from nadir, for FSS non-GSO space stations operating in the frequency band 37.5-38 GHz. In addition, interference into the cold calibration channel of the EESS (passive) sensor operating in the frequency band 36-37 GHz has not been studied.</p> <p>WRC-19 invites ITU-R to conduct further study of this topic and develop Recommendations and/or Reports, as appropriate, and report back to WRC-23 to take action, if necessary.</p> <p>Furthermore, WRC-19 agreed that modifications to Resolution 750 (Rev. WRC-19) should not be considered under these studies since the frequency band 36-37 GHz is not referenced in No. 5.340.</p>	WP 4A, WP 5A, WP 5C, WP 5D

9.2 on any difficulties or inconsistencies encountered in the application of the Radio Regulations; and¹

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

Topic	Responsible group	Action to be taken by the group	Contributing group
Resolution 80 (Rev.WRC-07) Due diligence in applying the principles embodied in the Constitution	–	<p>resolves</p> <ol style="list-style-type: none"> to instruct the Radiocommunication Sector, in accordance with No. 1 of Article 12 of the Constitution, to carry out studies on procedures for measurement and analysis of the application of the basic principles contained in Article 44 of the Constitution; to instruct the RRB to consider and review possible draft recommendations and draft provisions linking the formal notification, coordination and registration procedures with the principles contained in Article 44 of the Constitution and No. 0.3 of the Preamble to the Radio Regulations, and to report to each future World Radiocommunication Conference with regard to this Resolution; to instruct the Director of the Radiocommunication Bureau to submit to each future World Radiocommunication Conference a detailed progress report on the action taken on this Resolution, <p>invites</p> <ol style="list-style-type: none"> the other organs of the Radiocommunication Sector, in particular the RAG, to make relevant contributions to the Director of the Radiocommunication Bureau for inclusion in his report to each future World Radiocommunication Conference; administrations to contribute to the studies referred to in <i>resolves</i> 1 and to the work of the RRB as detailed in <i>resolves</i> 2. 	WP 4A

¹ This agenda sub-item is strictly limited to the Report of the Director on any difficulties or inconsistencies encountered in the application of the Radio Regulations and the comments from administrations. Administrations are invited to inform the Director of the Radiocommunication Bureau of any difficulties or inconsistencies encountered in the Radio Regulations.

10 to recommend to the Council items for inclusion in the agenda for the next WRC, and items for the preliminary agenda of future conferences, in accordance with Article 7 of the Convention and Resolution 804 (Rev.WRC-19)

Topic	Responsible group	Action to be taken by the group	Contributing group
Resolution 804 (Rev.WRC-19) Principles for establishing agendas for world radiocommunication conferences	See Annex 8 to this Administrative Circular	resolves <ol style="list-style-type: none"> 1 that recommended agendas for future WRCs shall include a standing agenda item for the establishment of preliminary agendas for subsequent WRCs; 2 that the principles in Annex 1 to this Resolution should be used when developing future WRC agendas; 3 to encourage administrations and regional telecommunication organizations to submit, to the extent practicable, information on possible items/topics for the agenda of future WRCs under the WRC standing agenda item mentioned in <i>resolves</i> 1 to the second session of the CPM, resolves to invite administrations <ol style="list-style-type: none"> 1 to use the template in Annex 2 to this Resolution in proposing agenda items for WRCs; 2 to participate in regional activities for the preparation of future WRC agendas. 	–