Australian Government
Department of Infrastructure, Transport,
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Australian preliminary positions on WRC-23 agenda items

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Agenda item 1.1—Protection of aeronautical and maritime mobile services in 4 800–4 990 MHz located in international airspace and waters

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)**;

Australian preliminary position

Australia supports protection of stations of the aeronautical mobile service (AMS) and the maritime mobile service (MMS) located in international airspace or waters (i.e. outside national territories) and operated in the 4 800-4 990 MHz frequency band (from other stations located within national territories) while enabling the use of this band for IMT as practicable.

Agenda item 1.2—IMT in various bands between 3300 MHz and 10.5 GHz

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)**;

Australian preliminary position

Australia's objective is to encourage improvements in IMT capabilities and economies of scale through increased spectrum efficiency and harmonisation, subject to coexistence with other services to which the frequency bands are allocated on a primary basis (and in adjacent bands, as appropriate), being technically feasible. Australia will consider the outcome of studies in developing its position on this agenda item. Australia supports the protection of existing primary services.

Australia supports the APT Preliminary View as agreed at APG23-2.

Agenda item 1.3—Primary mobile service allocation in 3600–3800 MHz in Region 1

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

Australian preliminary position

Australia supports harmonisation of international spectrum use. Australia notes that this is a Region 1 issue and does not have a position on this agenda item. ITU-R studies including adjacent band services in accordance with Resolution **246 (WRC-19)** may assist to inform a decision on allocation of the 3.6-3.8 GHz band to the mobile, except aeronautical mobile, service on a primary basis within Region 1.

Agenda item 1.4—High-altitude platform stations for IMT base stations (HIBS) in certain frequency bands below 2.7 GHz

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;

Australian preliminary position

Australia supports establishing a new globally or regionally harmonised regulatory framework that responds to changing technology and improves the efficient use of frequency bands below 2.7 GHz already identified for IMT, by facilitating the use of HIBS. Australia notes that any change must ensure the protection of services to which the bands are allocated and should not give priority to HIBS over existing IMT identifications.

Agenda item 1.5—Review of 470—960 MHz in Region 1 and possible regulatory actions in 470—694 MHz in Region 1

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)**;

Australian preliminary position

Australia notes that this is a Region 1 issue and does not have a position on this agenda item. However, studies may assist towards reviewing spectrum use and spectrum needs of existing services in the frequency band 470-694 MHz.

Agenda item 1.6—Regulatory provisions for sub-orbital vehicles

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

Australian preliminary position

Australia supports ITU-R studies of spectrum needs for communications between stations on board sub-orbital vehicles and terrestrial/space stations and of appropriate modification, if any, to the Radio Regulations consistent with Resolution **772 (WRC-19)**. Australia notes that new allocations or changes to the existing allocations in Article **5** are excluded under this agenda item at WRC-23.

Agenda item 1.7—New aeronautical mobile satellite (R) service (AMS(R)S) allocation in 117.975–137 MHz

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;

Australian preliminary position

Australia supports ITU-R studies for AMS(R)S in the frequency bands defined in Resolution **428 (WRC-19)**. Subject to these sharing and compatibility studies showing no adverse impact to the operation of existing VHF systems operating in the AM(R)S, Australia supports a new AMS(R)S allocation in the 117.975-137 MHz band to enhance the efficiency and capacity of aircraft operations.

Agenda item 1.8—Use of fixed-satellite service (FSS) networks by control and non-payload communications of unmanned aircraft systems

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;

Australian preliminary position

Australia has not formed a view on this agenda item. However, Australia supports progress of work on technical and regulatory issues under this agenda item.

Agenda item 1.9—Digital commercial aviation safety-of-life applications in existing HF bands allocated to the aeronautical mobile (route) service

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)**;

Australian preliminary position

Australia supports international arrangements through the Radio Regulations that are consistent with the rational and efficient use of Australia's sovereign assets in the radiofrequency spectrum. In line with this, Australia supports sharing studies to ensure compatibility between the proposed digital technologies and the incumbent primary services within the frequency bands under Resolution **429 (WRC-19)** and adjacent bands. Australia supports ensuring studies and changes proposed are technology neutral.

Agenda item 1.10—New allocations for the aeronautical mobile service for the use of non-safety aeronautical mobile applications

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)**;

Australian preliminary position

Australia supports studies on spectrum needs for new non-safety aeronautical mobile applications as well as sharing and compatibility studies in the 15.4-15.7 GHz and 22-22.21 GHz frequency bands to evaluate possible primary allocations to aeronautical mobile services, while ensuring the protection of primary services in these bands and, as appropriate, in adjacent frequency bands.

Agenda item 1.11—Modernisation of the Global Maritime Distress and Safety System and the implementation of e-navigation

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)**;

Australian preliminary position

Issue A/resolves 1 – GMDSS modernisation

Australia supports regulatory action to progress the modernisation of the GMDSS, taking into consideration the decisions of IMO.

Issue B/resolves 2 – eNavigation

Australia supports, taking into consideration the decisions of IMO, implementation of e-navigation in the Radio Regulations.

Issue C/resolves 3 – new satellite systems

Australia supports regulatory action to enable the introduction of additional satellite systems into the GMDSS if:

- the results of ITU-R study ensure protection of services in the same and adjacent frequency bands;
- ITU-R coordination and notification with other systems is completed; and
- IMO (and IMSO) recognition is obtained prior to consideration by WRC-23.

Agenda item 1.12—New secondary allocation to the Earth exploration-satellite (active) service for spaceborne radar sounders around 45 MHz

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)**;

Australian preliminary position

Australia supports studies which assess the compatibility between spaceborne radar sounders and incumbent services around 45 MHz. If the study results are in support of a secondary allocation to EESS around 45 MHz, Australia supports enabling a secondary allocation, while ensuring protection of existing services and not imposing any additional restrictions onto these services.

Agenda item 1.13—Upgrade of the allocation for the frequency band 14.8–15.35 GHz to the space research service

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)**;

Australian preliminary position

Australia supports studies assessing the feasibility of upgrading the current secondary allocation to the SRS in the frequency band 14.8-15.35 GHz to primary status. If the results of the studies show that protection of existing primary services is feasible, then Australia supports an upgrade to primary status, while ensuring protections to primary fixed service and mobile service systems in the frequency band 14.8-15.35 GHz.

Agenda item 1.14—Possible new allocations from 231.5–252 GHz

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)**;

Australian preliminary position

Australia support studies into the EESS (passive) in the frequency range 231.5-252 GHz that review the existing primary allocations, study the impact that any changes might have on other primary services in these bands, and consider possible adjustments to the allocations. Subject to the outcome of the studies, Australia can consider the adjustment of existing allocations or adding possible new allocations, as appropriate, to the EESS (passive) in 231.5-252 GHz, according to observation requirements of passive microwave sensors.

Agenda item 1.15—Use of the Ku-band (12.75–13.25 GHz) FSS by ESIM

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)**;

Australian preliminary position

Australia supports the establishment of a new regulatory framework (including technical and operational requirements) that improves the efficiency of use of the 12.75-13.25 GHz band by facilitating fixed-satellite service (FSS) earth stations in motion (ESIM) to use the frequency bands. Such ESIM use must ensure protection of services allocated in the bands and should not impact the usability of the allotments in the Plan and assignments in the List under Appendix 30B of the Radio Regulations.

Agenda item 1.16—Use of the Ka-band by non-GSO FSS ESIM

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)**;

Australian preliminary position

Australia supports the establishment of a harmonised regulatory framework and technical and operational measures that facilitate the use of non-geostationary (non-GSO) earth-stations in motion (ESIM) in the fixed-satellite service in the 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) frequency bands. Such use must ensure protection of services allocated in the bands and, as appropriate, in the adjacent bands. Australia is of the view that similar technical, operational and regulatory provisions as those applicable to GSO ESIM would also be applicable for non-GSO ESIM in these frequency bands. While an appropriate examination methodology may be established for any measures to be taken by the Bureau for non-GSO ESIM to comply with resolutions dealing with this Agenda Item, adequate transitional measures could be developed in case the methodology is not finalized by WRC-23.

Agenda item 1.17—Provision of inter-satellite links in specific frequency bands

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;

Australian preliminary position

Australia supports ITU-R studies to develop technical conditions and regulatory provisions that establish a harmonised framework which facilitates the use of satellite-to-satellite operations in the 11.7-12.7 GHz, 18.1-18.6 GHz, 18.8-20.2 GHz and 27.5-30 GHz frequency bands in accordance with Resolution 773 (WRC-19). Such use must ensure protection of primary services allocated in the bands and in the adjacent bands.

Agenda item 1.18—New allocations to the mobile-satellite service for future development of narrowband mobile-satellite systems

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)**;

Australian preliminary position

Noting that this is a Region 1 and 2 issues, Australia supports sharing and compatibility studies with existing primary services to determine the suitability of new allocations to the mobile-satellite service (MSS), with a view to protecting the primary services, in the relevant frequency bands and adjacent frequency bands, without causing undue constraints on their further development.

Agenda item 1.19—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

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)**;

Australian preliminary position

Australia supports arrangements that are consistent with the rational and efficient use of Australia's sovereign assets in the radiofrequency spectrum. Noting that this is a Region 2 issue, Australia does not currently have a position on the proposed new primary allocation, however, protection for existing Appendix 30A satellite networks should be ensured.

Agenda item 2—Incorporation by reference

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;

Australian preliminary position

Australia supports the examination and review of ITU-R Recommendations incorporated by reference into the Radio Regulations and, where appropriate, the updating of these references.

Agenda item 4—Review of Resolutions and Recommendations in RR Vol 3

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;

Australian preliminary position

Australia supports the principle and intent of Resolution 95 (Rev.WRC-19), to ensure Resolutions and Recommendations of past WRCs are relevant and kept up to date. Australia's positions on specific proposals will be developed as these proposals arise during the cycle. There are no known such proposals.

Agenda item 7—Satellite regulatory and procedural issues

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;

Australian preliminary position

Australia supports consideration of possible changes to improve advance publication, coordination, notification and recording procedures for space services in the Radio Regulations in accordance with Resolution **86 (Rev.WRC 07)**, provided that such changes do not result in modification of frequency allocations in Article 5 of the Radio Regulations.

Topic A—Tolerances for certain orbital characteristics of non-GSO space stations in the FSS, BSS, and MSS

Australia supports studies. The scope of any studies should be limited to the differences between the notified and deployed non-GSO orbital characteristics for the inclination of the orbital plane, the altitude of the apogee of the space station, the altitude of the perigee of the space station and the argument of the perigee of the orbital plane.

Topic B—Non-GSO system post milestone reporting

Australia supports the development of the final post-milestone procedures at WRC-23 to supplement what was considered the temporary post-milestone procedures as contained in resolves 19 of Resolution **35 (WRC-19)**.

Topic C—Protection of GSO satellite networks in the MSS operating in 7/8 GHz and 20/30 GHz from emissions of non-GSO satellite systems operating in the same frequency bands and identical directions

Australia supports studies.

Topic D—Modifications to Appendix 1 to Annex 4 of Appendix 30B

Australia has not formed a view on this Topic.

Topic E—Improved procedures under RR Appendix 30B for new ITU Member States

Australia has not formed a view on this Topic.

Topic F – Impact of excluding feeder-link/Up-link service and coverage areas in the bands subject to RR Appendix 30A and RR Appendix 30B

Australia is following developments on this Topic with a global focus related to the feeder-link/uplink coverage areas in RR Appendices **30A** and **30B**, recognizing the need to facilitate for an Administration or a group of named Administrations to coordinate the feeder-link/uplink just as there are such regulatory provisions with regards to the downlink. Australia supports the need to find an appropriate regulatory measure to facilitate equitable feeder-link/uplink spectrum access while taking into consideration existing assignment and allotments in RR Appendices **30A** and **30B**.

Agenda item 8—Deletion of country footnotes

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)**;

Australian preliminary position

Australia supports the principles and intent of Resolution 26 **(Rev.WRC-07)** and the WRC standing agenda item for administrations to remove their country footnotes or their country names associated with specific footnotes of the Table of Frequency Allocations in Article **5** of the Radio Regulations when no longer required.

Should there be contributions to WRC-23 under this standing agenda item for addition of a new footnote or modification of an existing footnote, such contributions should only be considered by the WRC consistent with the further resolves 1 of Resolution **26 (Rev.WRC-19)** and the guidance provide in Annex 1 to the Resolution.

Agenda item 9.1a—Recognition and protection of space weather sensors

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;

Australian preliminary position

Australia supports studies addressing space weather sensors with a view to ensuring the Radio Regulations include appropriate recognition and future protection for space weather sensors. These studies should ensure that additional constraints are not placed on incumbent services.

Agenda item 9.1b—Review of the amateur and amateur-satellite services in 1 240–1 300 MHz to ensure protection of the radionavigation-satellite (space-to-Earth) service

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:

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)**;

Australian preliminary position

Australia supports studies in line with Resolution 774 (WRC-19), to protect RNSS receivers while supporting the continued use of these frequency bands by the amateur and amateur-satellite services.

Agenda item 9.1c—Use of IMT systems for fixed wireless broadband in bands allocated to the fixed service on a primary basis

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:

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

Australian preliminary position

Australia supports studies in accordance with Resolution 175 (WRC-19). Australia also supports the modification of existing or, if required, the development of new ITU-R Recommendations, Reports and/ or Handbooks as a result of these studies, but does not support changes to the Radio Regulations being made under this topic. Australia is of the view that the term “fixed wireless broadband” is understood to mean fixed wireless access supporting broadband applications. The use of IMT as a technology for the deployment of fixed wireless broadband is no different to the use of any other radio interface technologies for fixed wireless broadband in bands allocated to the fixed service on a primary basis provided that such use is in accordance with the Radio Regulations.

Agenda item 9.1d—Protection of EESS (passive) in the frequency band 36–37 GHz from non-GSO FSS space stations

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:

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

Australian preliminary position

Australia supports studies being conducted with regard to the protection of EESS (passive) sensors operating in the band 36-37 GHz from non-GSO fixed satellite service space stations in the band 37.5-38 GHz, and development of Recommendations and Reports as appropriate.

Agenda item 9.2—Difficulties or inconsistencies encountered in the application of the Radio Regulations

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

Note that 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;

Australian preliminary position

TBD

Agenda item 9.2—Issue from Resolution 427 (WRC-19)

to study the Articles, limited to Chapters IV, V, VI and VIII of Volume I of the Radio Regulations and their associated Appendices, as appropriate, in order to identify outdated aeronautical provisions with respect to ICAO standards and recommended practices and to develop examples of regulatory texts for updating these provisions, while ensuring that potential changes to such provisions will not impact any other systems or services operating in accordance with the Radio Regulations" (Resolution **427 (WRC-19)**);

Australian preliminary position

Australia supports ITU-R studies on the relevant Articles of Volume I of the Radio Regulations and their associated appendices to identify outdated aeronautical provisions, and the development of regulatory texts for updating these provisions. It is a priority for Australia that proposed changes should not impact current or planned aeronautical systems or applications.

Agenda item 9.2—Review of Article 21.5

ITU-R is invited to study, as a matter of urgency, the applicability of the limit specified in No. **21.5** of the Radio Regulations to IMT stations, that use an antenna that consists of an array of active elements, with a view to recommend ways for its possible replacement or revision for such stations, as well as any necessary updates to Table **21-2** related to terrestrial and space services sharing frequency bands. Furthermore, the ITU-R is invited to study, as a matter of urgency, verification of No. **21.5** regarding the notification of IMT stations that use an antenna that consists of an array of active elements, as appropriate. (WRC-19 Document 550);

Australian preliminary position

Australia supports studies being conducted to address the applicability of No. 21.5 to clarify its operation in order to provide regulatory certainty for the deployment of IMT stations using active antenna systems (AAS).

For IMT stations with AAS operating in the band 24.25-27.5 GHz, Australia supports using a total radiated power within a defined reference bandwidth to capture the "power delivered to the antenna of a station" in No. 21.5. Australia has not yet formed a view on what reference bandwidth should apply.

Agenda item 9.3—Action in response to Resolution 80

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

Australian preliminary position

Australia will monitor outcomes of the Radio Regulations Board (RRB) (and the Report by the RRB to WRC 23 when it becomes available in 2023) with respect to Resolution **80 (Rev.WRC-07)**.

Agenda item 10—Future agenda items

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)**;

Australian preliminary position

Australia supports an agenda for WRC-27 that is consistent with Australia's long-term objectives for spectrum management, and which will allow for the rational and efficient use of Australia's sovereign assets in the radiofrequency spectrum. Australia supports the consideration of items that are of international and regional importance, which can only be effectively addressed through a WRC, and which are likely to be resolved within the available time and resources.