COMMUNICATIONS ALLIANCE LTD

COMMUNICATIONS ALLIANCE

SATELLITE SERVICES WORKING GROUP

Input on Australian positions for satellite-related WRC-27 agenda items

Position Paper

13 February 2025

CONTENTS

Preamble

The Communications Alliance Satellite Services Working Group (SSWG), whose members represent the national and overseas providers of communications satellite services in Australia, will participate in the ITU's World Radiocommunication Conference (WRC-27).

This paper presents, for consideration by Government, the SSWG's preferred Australian stance on each of the WRC-27 Agenda Items. In addition, this paper identifies those items that based on current information the SSWG consider warrant monitoring / following of debate to ensure that satellite networks or services operating in Australia and particularly those that provide services to Australia and its territories are not adversely affected. In some cases, as always, there is ongoing debate within SSWG on these positions and this has been reflected in the comments. The paper also does not purport to represent the views of Communications Alliance members that are not also members of the SSWG.

The position paper will be updated as the ITU WRC studies progress.

Communications Alliance
Communications Alliance is the primary communications industry body in Australia. Its membership is drawn from a wide cross-section of the communications industry, including carriers, carriage and internet service providers, content providers, platform providers, equipment vendors, IT companies, consultants and business groups.

Its vision is to be the most influential association in Australian communications, co-operatively initiating programs that promote sustainable industry development, innovation and growth, while generating positive outcomes for customers and society.

The prime mission of Communications Alliance is to create a co-operative stakeholder environment that allows the industry to take the lead on initiatives which grow the Australian communications industry, enhance the connectivity of all Australians and foster the highest standards of business behaviour.

For more details about Communications Alliance, see https://www.commsalliance.com.au.

Agenda Item Positions

Agenda Item 1.1
Q/V Band ESIM

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

SSWG suggested Australia position

Australia supports the development of new regulatory procedures to enable aeronautical and maritime earth stations in motion operation in 47.2 – 50.2 GHz and 50.4 – 51.4 GHz (E-s).

SSWG position

The opening up of the Q/V band for A-ESIMs and M-ESIMs communicating with GSO or NGSO satellites would help meet increasing demand for connectivity in aircraft and vessels, enabling consumers to benefit from the latest innovations in satellite technology. We support studies to develop a framework for the use of the frequency bands 47.2 – 50.2 GHz (Earth-to-space) and 50.4 – 51.4 GHz (Earth-to-space) by A-ESIMs and M-ESIMs communicating with GSO networks and NGSO systems, while ensuring the protection of incumbent primary services in these frequency bands and adjacent bands

To maintain a consistent regulatory framework for ESIMs, the SSWG supports the development of the ITU-R Recommendation for the Network Control and Monitoring Centre (NCMC) for ESIM operations, which ensures control of ESIM transmissions without hindering their development.

The SSWG supports the development of new regulatory provisions to enable ESIM operation in Q/V band while taking into account Articles 22.5L and 22.5M.

The SSWG supports the continuation of the application of Article 22.2 to this band. The applicability of Resolution 770 (Rev. WRC-23) to interference scenarios in which rain on the wanted and interfering paths may not be correlated has been introduced as a study topic in ITU studies and the SSWG will consider the results of those studies.

Agenda Item 1.2
Small VSAT antennas in Ku band

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

SSWG suggested Australia position

Australia supports studies to be conducted in reviewing the antenna size and power limitations associated with GSO and NGSO Fixed Satellite Service earth stations in the 13.75 – 14 GHz band.

SSWG position

The SSWG supports studies to be conducted in reviewing the antenna size and power limitations associated with GSO and NGSO Fixed Satellite Service (FSS) earth stations. It supports studies aiming to review the usage and sharing conditions of the band 13.75 – 14 GHz in accordance with Resolution 129 (WRC-23). Allowing small satellite user terminals to operate in the 13.75 – 14 GHz band would enable more efficient use of the radio frequency spectrum, alleviate congestion in the existing uplink Ku-band and balance the amount of available uplink and downlink spectrum resources for FSS in the Ku band.

Agenda Item 1.3
V Band NGSO Gateways

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

SSWG suggested Australia position

Australia supports studies towards provisions to allow NGSO systems to use the frequency band 51.4 – 52.4 GHz for gateways while protecting existing services from unacceptable interference.

SSWG position

The SSWG supports studies towards provisions to allow NGSO systems to use this band for gateways while protecting GSO networks from unacceptable interference in accordance with Article 22.2.

Agenda Item 1.3 proposes to add NGSO's use of the FSS allocation in 51.4 – 52.4 GHz. This band was allocated to FSS but for GSO only in WRC-19. Additionally at WRC-19 a regulatory framework was developed and approved for sharing between GSO and NGSO FSS in the adjacent 50.4 – 51.4 GHz band.

Australia should support protection of EESS passive, through a revision of Resolution 750.

The continued application of Article 22.2 will require new provisions for the protection of GSO networks to be put in place. The extension of the existing regulatory framework in the lower

adjacent band may be studied alongside other sharing approaches. In developing regulatory provisions for the protection of GSO networks under Article 22.2, aggregate emissions should be considered, along with their potential impact on GSO networks.

Agenda Item 1.4
New Ka Allocations to FSS in Region 3

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

SSWG suggested Australia position

Australia supports the new allocation to FSS (space-to-Earth) in 17.3 – 17.7 GHz for both GSO and NGSO in Region 3 in order to harmonise this band globally in all three Regions.

SSWG position

The SSWG supports the new allocation to FSS (space-to-Earth) in 17.3 – 17.7 GHz for both GSO and NGSO in Region 3 in order to harmonise this band globally in all three Regions

Agenda Item 1.4 proposes to add an allocation to the FSS in the band 17.3 – 17.7 GHz in Region 3. The SSWG supports this allocation to the FSS both GSO and NGSO (subject to EPFD limits under Article 22 Table 22-1B). Australia seeks a globally harmonised FSS allocation.

Australia should oppose any attempts to limit this new allocation to GSO systems only.

Depending on the above, Australia may initially oppose an allocation to the BSS, however this could be used as a bargaining chip in the case of NGSO.

In addition to EPFD limits of Table 22-1B may be extended into the 17.3 – 17.7 GHz band, aggregate emission limits may also be established in Resolution 76, based on the existing aggregate limits already in place above 17.7 GHz.

Agenda Item 1.5
Unauthorised Transmissions of NGSO FSS and MSS

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

SSWG suggested Australia position

Australia supports the use of practical and enforceable measures under existing regulations, including their update, if necessary, to manage and limit unauthorised operation of earth station terminals, without excluding territories from the service area of NGSO systems.

SSWG position

The SSWG supports the use of practical and enforceable measures under existing regulations, including their update, if deemed necessary by studies, to manage and limit unauthorised operation of earth station terminals, without excluding territories from the service area of NGSO systems.

This agenda item concerns both the FSS and MSS, so when developing solutions to the agenda item, WP4C ought to be consulted to ensure possible methods to satisfy the agenda item are practical and enforceable for MSS.

There are regulations in Article 18 of the ITU Radio Regulations, along with Resolution 22 (Rev. WRC-23) and Resolution 25 (Rev. WRC-23), that impose mandatory licensing and authorisation obligations. These existing regulations already respect the sovereign rights of all administrations to authorise earth stations operations in their countries. Additional regulatory burdens imposed could result in increasing complexity of regulatory procedures required to bring global connectivity and bridge the digital divide.

As such, it is essential to consider as a first step the applicability, relevance and enforcement mechanisms of existing regulations to limit unauthorised uplink transmissions.

The SSWG considers that any specific measures to avoid unauthorised transmissions in the territory of a particular country, should be established and enforced within its domestic regulations without the need to alter the current international framework.

The SSWG envisages Australia should follow debate on this issue with a view of satisfying the mandates of the Resolution while at same time ensuring the service areas of satellite networks and systems are not adversely affected by any proposed method, especially where those satellite networks or systems provide services to Australia and its territories. The regulatory measures contained in Article 18, Resolutions 22 and 25 should also be assessed to determine if they offer an adequate framework for addressing the unauthorised operations of NGSO earth stations in the Earth-to-space direction. Any measures developed under this Agenda Item should be technology-neutral, maintaining the alignment between GSO and NGSO regulatory frameworks. In that regards the SSWG supports comprehensive solution that is applicable to both GSO and NGSO systems.

Agenda Item 1.6
Equitable Access in FSS Q/V Bands

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

SSWG suggested Australia position

Australia is of the view that the current provisions of the Radio Regulations bestow all Member States access to the orbit/spectrum resource in equal grounds, therefore there is no need to modify the Radio Regulations for the purpose of equitable access. Instead, we could explore ways to provide technical and regulatory assistance to Member States to facilitate the filing and coordination processes.

SSWG position

The SSWG is of the view that existing and planned satellite networks and systems should not be impacted by the decisions made under this agenda item.

The SSWG is of the view that the current provisions of the Radio Regulations bestow all Member States access to the orbit/spectrum resource in equal grounds, therefore there is no need to modify the RR for the purposes of equitable access. Instead, we could explore ways to provide technical and regulatory assistance to Member States to facilitate the filing and coordination processes.

Agenda Item 1.7
IMT in FSS and MSS Bands

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

SSWG suggested Australia position

Australia supports the sharing and compatibility studies to be conducted by ensuring protection of all FSS and MSS based on characteristics of the existing and planned satellite services in the relevant portions of the band 7125 – 8400 MHz.

SSWG position

The SSWG supports the sharing and compatibility studies to be conducted by ensuring protection of FSS and MSS based on characteristics of the existing and planned satellite services in the relevant portions of the band 7125 – 8400 MHz.

Agenda Item 1.8
Radiolocation Above 200 GHz

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

The SSWG has no view on this Agenda Item.

Agenda Item 1.9
Aeronautical HF

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

The SSWG has no view on this Agenda Item.

Agenda Item 1.10
EIRP Limits for FSS, MSS and BSS in 70/80 GHz

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

SSWG suggested Australia position

Australia supports studies to establish an appropriate sharing condition between satellite and fixed services in the bands 71–76 GHz and 81–86 GHz.

SSWG position

The SSWG notes that satellite operators have an increasing interest in using E-band for gateways, which offer up to 10 GHz of spectrum.

The SSWG supports studies towards developing PFD and EIRP limits for inclusion in Article 21 of the Radio Regulations for the FSS, MSS and BSS services to protect the fixed and mobile services in the frequency bands 71 – 76 GHz and 81 – 86 GHz. SSWG notes that FSS, MSS and BSS services are co-primary with terrestrial services in the band. Consequently, the eventual limits proposed should not unduly constrain satellite services, since Article 21 is about sharing the band with equal rights between terrestrial and space services.

Agenda Item 1.11
Space to Space Links in L and S MSS Bands

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

SSWG suggested Australia position

Australia supports studies to determine appropriate technical and regulatory provisions to address Resolution 249 (Rev. WRC-23) and consider space-to-space links in the frequency bands 1518 – 1544 MHz, 1545 – 1559 MHz, 1610 – 1645.5 MHz, 1646.5 – 1660 MHz, 1670 – 1675 MHz and 2483.5 – 2500 MHz while ensuring the protection of incumbent services in these bands and adjacent frequency bands and not constraining these services in any way. Australia should consider possible allocations to the inter-satellite service in bands where studies show that existing services can be protected, in particular GMDSS and AMS(R)S.

SSWG position

The SSWG supports studies to determine appropriate technical and regulatory provisions to address Resolution 249 (Rev. WRC-23) and consider space-to-space links in the frequency bands 1518 – 1544 MHz, 1545 – 1559 MHz, 1610 – 1645.5 MHz, 1646.5 – 1660 MHz, 1670 – 1675 MHz and 2483.5 – 2500 MHz while ensuring the protection of incumbent services in these bands and adjacent frequency bands while not constraining these services in any way. The SSWG is of the view that Australia should consider possible allocations to the inter-satellite service in bands where studies show that existing services can be protected, in particular GMDSS and AMS(R)S.

Space-to-space links, within the scope defined in Resolution 249 (Rev. WRC-23), should only be operated in conjunction with coordinated MSS (Earth-to-space and space-to-Earth) networks in these bands.

Agenda Item 1.12
Low Data Rate MSS

to consider, based on the results of studies, possible allocations to the mobile satellite service and possible regulatory actions in the frequency bands 1427–1432 MHz (space-to-Earth), 1645.5–1646.5 MHz (space-to-Earth) (Earth-to-space), 1880–1920 MHz (space-to-Earth) (Earth to-space) and 2010–2025 MHz (space-to-Earth) (Earth-to-space) required for the future development of low-data-rate non-geostationary mobile satellite systems, in accordance with Resolution 252 (WRC-23);

SSWG suggested Australia position

Australia is of the view that the study on spectrum requirements, technical and operational characteristics, and conditions for low-data-rate MSS requires a clear technical description of low-data-rate MSS systems.

SSWG position

The SSWG is of the view that the sharing and compatibility studies must ensure the protection of incumbent services, including in-band and adjacent frequency bands already allocated to the MSS. Specifically, these studies must examine the impact of the proposed bidirectional operations on incumbent services in all candidate bands under AI 1.12.

The SSWG holds the view that any regulatory considerations for low-data-rate MSS systems should not include operation on an exclusive basis.

The SSWG notes that AI 1.12 was Agenda Item 1.18 for WRC and was unsuccessful. The only material change was from the term 'narrowband' in 1.18 (WRC-23) to 'Low Data Rate' in 1.12 (WRC-27).

The SSWG's position for this Agenda Item is No Change (NOC), that is no allocation. However, should spectrum be found that does not affect current MSS operations and is not being considered under Agenda Item 1.14 (WRC-27), the SSWG may be open to considering this.

Agenda Item 1.13
Direct to Device Connectivity

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

SSWG suggested Australia position

Australia supports sharing studies to be conducted based on the impact of direct connectivity MSS operation in the downlink (space-to-Earth) direction taking into account the protection of terrestrial IMT (i.e. the other IMT networks that are unrelated to this direct connectivity from space service) and other incumbent services operating co-frequency and in adjacent bands.

SSWG position

The SSWG supports sharing studies to be conducted based on the impact of satellite operation in the downlink (space-to-Earth) direction taking into account the protection of terrestrial IMT (i.e. the other IMT networks that are unrelated to the direct connectivity from space service) and other incumbent services operating co-frequency and in adjacent bands.

Since the IMT user equipment would remain the same, the transmission from IMT user equipment in the uplink (Earth-to-space) direction that expects to operate under the same technical characteristics as per existing terrestrial IMT network in the uplink (user-to-base station) direction would already be operating in the same frequency band with or without the direct connectivity from space service, hence SSWG is of the view that the Earth-to-space direction is not required for study under this agenda item.

As the IMT frequency arrangements within in 694/698 – 960 MHz, 1427 – 1518 MHz, 1710 – 1785 MHz, 1805 – 2025 MHz, 2110 – 2200 MHz, 2300 – 2400 MHz and 2500 – 2690 MHz contain both frequency-division duplex (FDD, or sometimes known as paired arrangements) and time-division duplex (TDD, or sometimes known as unpaired arrangements), it is not advisable to simply exclude a frequency band for study just because it comprises TDD arrangement, as most of the above frequency bands have a mixture of TDD and FDD

arrangements. Moreover, even for frequency bands containing only FDD arrangements as per Recommendation ITU-R M.1036, some FDD arrangements are in cross directionality within overlapping frequency range of other FDD arrangements. Hence, the sharing study undertaken in this agenda item will study these cases within the same frequency range taking into account emissions coming from both uplink (Earth-to-space) and downlink (space-to-Earth) directions (similar to TDD) anyway.

It is therefore important to study the possibility of new MSS allocations in the space-to-earth direction with overlapping frequencies for primary, existing MSS allocations in the Earth-to-space direction under this agenda item.

The SSWG emphasises the importance of conducting sharing and compatibility studies to ensure the protection of existing MSS operations from potential new MSS allocations operating in opposite directions within the in-band and adjacent frequency bands already allocated to the MSS. For example, MSS uplink allocations globally in the 1980 – 2010 MHz range and in Region 2 in the 2010 – 2025 MHz range, among others.

The SSWG is of the view that any regulatory considerations for MSS systems potentially enabling direct connectivity between space stations and IMT user equipment to complement terrestrial IMT network coverage should not allow for exclusive MSS operation.*

The SSWG supports conducting sharing studies in the bands listed at the Working Party 4C of October 2024, i.e. the list of bands sent to 4C by 5D. Studies should be as realistic as possible, with accurate modelling of NGSO D2C system operations.

Studies on this agenda item should focus on those frequency bands identified for the terrestrial component of IMT. Studies should take into account the protection of IMT as well as other incumbent services in and or adjacent to these bands.

The SSWG notes that there are existing MSS allocations between 694 MHz and 2690 MHz that could support direct connectivity from space for mobile earth stations, including IMT user equipment in some of these bands.

* This does not represent the views of SpaceX

Agenda Item 1.14
New MSS Allocations

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

SSWG suggested Australia position

Australia supports the sharing studies to be conducted in accordance with Resolution 254 (WRC-23) and in the context of these studies consider new MSS allocations.

SSWG position

The SSWG supports identifying new allocations for the MSS and encourages the Australian Communications and Media Authority (ACMA) to look for bands under study that may be suitable.

The SSWG supports sharing studies of possible new allocations to the MSS under Agenda Item 1.14 while being mindful that the frequency bands for study under this agenda item would overlap with studies in the same frequency bands to be considered under agenda items 1.12 and 1.13.

The SSWG is of the view that Agenda Item 1.14 provides potential new allocations to the MSS that can accommodate any application falling under conventional MSS including those contemplated under Agenda Items 1.12 and 1.13.

Agenda Item 1.15
New Space Research Allocations

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

The SSWG has no view on this Agenda Item.

Agenda Item 1.16
Protection of Radio Quiet Zones in Regions 1 and 2 from NGSO

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

SSWG suggested Australia position

Australia is of the view that the scope of this agenda item is limited to the protection of the Radio Astronomy Service (RAS) stations in frequency bands allocated to the RAS on a primary basis as shown in Table 1 of Resolution 681 (WRC-23). Australia is of the view that studies conducted under *resolves* 3-6 should not result in any regulatory action limiting the operation of current, future and planned FSS and MSS satellite systems.

SSWG position

The SSWG is of the view that the scope of this agenda item is limited to the protection of the Radio Astronomy Service (RAS) stations in frequency bands allocated to the RAS on a primary basis as shown in Table 1 of Resolution 681 (WRC-23).

The SSWG is also of the view that sharing studies should consider potential mitigation techniques for FSS to operate in adjacent channels to RAS, e.g. boresight avoidance manoeuvres.

The SSWG is of the view that there are important issues to be addressed regarding *resolves* 3 to 6, including the meaning of 'recognition' and taking proper account of the status of frequency allocations in the ranges used for observations at the two RAS sites. These studies should focus on providing tools that help manage the coexistence without the need for changes to the Radio Regulations and take into account the allocation status of the services in each frequency band in which observations are conducted. It is important not to take actions that could impose undue constraints on NGSO operations critical for global communications infrastructure. Accordingly, the SSWG does not support any changes to the Radio Regulations resulting from studies in accordance with Resolution 681 (WRC-23).

Agenda Item 1.17
Passive Weather Sensors

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

The SSWG has no view on this Agenda Item.

Agenda Item 1.18
Passive EESS above 76 GHz

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

SSWG suggested Australia position

Australia supports conducting sharing studies towards development of regulatory measures regarding the protection of the Earth exploration-satellite service (passive) and the radio astronomy service in certain frequency bands above 76 GHz from unwanted emissions of active services. Moreover, Australia supports studying potential application of mitigation techniques, e.g. satellite avoidance manoeuvres, in order to meet the protection limits of the EESS satellites.

SSWG position

The SSWG supports conducting sharing studies towards development of regulatory measures regarding the protection of the Earth exploration-satellite service (passive) and the radio astronomy service in certain frequency bands above 76 GHz from unwanted emissions of active services. Moreover, the SSWG supports studying potential application of mitigation techniques, e.g. satellite avoidance manoeuvres, in order to meet the protection limits of the EESS satellites.

The SSWG is of the view that Australia should support a balanced treatment of the active services considered under this Agenda Item.

Agenda Item 1.19
New Allocations to the Passive EESS in C and X Bands

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

SSWG suggested Australia position

Australia supports the study to consider possible primary allocations to EESS (passive) in the bands 4200 – 4400 MHz and 8400 – 8500 MHz while ensuring that any regulatory consideration for enabling EESS (passive) should not restrict the operation of existing, planned and future FSS networks and systems in adjacent bands, e.g. 3700 – 4200 MHz and 7900 – 8400 MHz.

SSWG position

The SSWG supports the study to consider possible primary allocations to EESS (passive) in the bands 4200 – 4400 MHz and 8400 – 8500 MHz while ensuring that any regulatory consideration for enabling EESS (passive) should not restrict the operation of existing, planned and future FSS networks and systems in adjacent bands, e.g. 3700 – 4200 MHz and 7900 – 8400 MHz.

Agenda Item 2
Recommendations Incorporated by Reference

to examine the revised ITU Radiocommunication Sector Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with the 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 the resolves of that Resolution;

The SSWG has no view on this Agenda Item at this stage.

Agenda Item 3
Consequential Changes to the RR

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

This Agenda Item is to be considered at the WRC-27 conference.

Agenda Item 4
Review of Resolutions and Recommendations

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;

The SSWG has no view on this Agenda Item at this stage.

Agenda Item 5
Take into Account the RA Report

to review, and take appropriate action on, the Report from the Radiocommunication Assembly submitted in accordance with Nos. 135 and 136 of the Convention;

This Agenda Item is to be considered at the WRC-27 conference.

Agenda Item 6
Actions for Study Groups

to identify those items requiring urgent action by the radiocommunication study groups in preparation for the next world radiocommunication conference;

This Agenda Item is to be considered at the WRC-27 conference.

Agenda Item 7
Possible Changes on Procedures Affecting Satellite Networks

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;

A Topic yet to be identified, if any

SSWG suggested Australia position

Australia should follow debate on this item with a view to ensure that satellite networks or services operating in Australia, particularly those that provide services to Australia and its territories are not adversely affected.

SSWG position

The SSWG envisages that Australia should follow debate on the topics to be identified under this agenda item with a view to ensure that satellite networks or services operating in Australia, particularly those that provide services to Australia and its territories are not adversely affected.

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-23);

The SSWG has no view on this Agenda Item.

Agenda Item 9
Approval of BR Report

to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the Convention;

Agenda Item 9.1
Report of the BR Director

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

This WRC's standing agenda sub-item is strictly limited to the Report of the Director on ITU-R activities since the last WRC; and any topics outside 1.1-1.19 as listed above shall be strictly avoided, particularly those topics which require any changes/amendments to the Radio Regulations.

SSWG suggested Australia position

Australia should follow debate on this item with a view to ensure that satellite networks or services operating in Australia, particularly those that provide services to Australia and its territories are not adversely affected.

SSWG position

The SSWG envisages that Australia should follow debate on this item with a view to ensure that satellite networks or services operating in Australia, particularly those that provide services to Australia and its territories are not adversely affected.

Agenda Item 9.2
Difficulties with or Inconsistencies Within the Radio Regulations

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

> *This WRC's standing 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.*

SSWG suggested Australia position

Australia should follow debate on this item with a view to ensure that satellite networks or services operating in Australia, particularly those that provide services to Australia and its territories are not adversely affected.

SSWG position

The SSWG envisages that Australia should follow debate on this item with a view to ensure that satellite networks or services operating in Australia, particularly those that provide services to Australia and its territories are not adversely affected.

Agenda Item 9.3
Actions WRT Resolution 80

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

SSWG suggested Australia position

Australia should follow debate on this item with a view to ensure that satellite networks or services operating in Australia, particularly those that provide services to Australia and its territories are not adversely affected.

SSWG position

The SSWG envisages that Australia should follow debate on this item with a view to ensure that satellite networks or services operating in Australia, particularly those that provide services to Australia and its territories are not adversely affected.

Agenda Item 10
New Agenda Items for WRC-31

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

SSWG suggested Australia position

To be developed.

SSWG position

The SSWG will develop positions for this agenda item at a later stage.

Abbreviations and acronyms

A-ESIM	Aeronautical ESIM
ACMA	Australian Communications and Media Authority
DTM	Direct-to-Mobile (also Direct-to-Device)
E-S	Earth to Space
EESS	Earth Exploration-Satellite Service
EIRP	Equivalent Isotropically Radiated Power
EPFD (or epfd)	Equivalent Power Flux Density
ESIM	Earth Station in Motion
FDD	Frequency Division Duplex
FSS	Fixed Satellite Service
GSO	Geostationary Satellite Orbit
IMT	International Mobile Telecommunications
ITU	International Telecommunication Union
M-ESIM	Maritime ESIM
MSS	Mobile Satellite Service
NCMC	Network Control and Monitoring Centre
NGSO	Non-Geostationary Satellite Orbit
NOC	No Change
PFD	Power Flux Density
RAS	Radio Astronomy Service
S-E	Space to Earth
SSWG	Communications Alliance Satellite Services Working Group
TDD	Time Division Duplex
WRC	World Radiocommunications Conference

Versions

1	28 Jan 2025.
1. 1	13 Feb 2025. Amendment to AI 1.13

Communications Alliance Satellite Services Working Group membership

Amazon
EchoStar Global Australia
EutelSat OneWeb
Foxtel
FreeTV
GVF
Globalstar
Inmarsat
Intelsat
Ipstar
Iridium
Lockheed Martin
nbn
Omnispace
Optus
Pivotel Satellite
SES
Skybridge
SpaceX
Speedcast
Telesat
Telstra
ViaSat
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