

ITSO WEBINAR: WRC-27, SES VIEWS AND THE PARTIES' COMMON HERITAGE

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Solve.
Empower.
Soar.



About SES

A global space solutions
company

The New SES

Solve. Empower. Soar.

We are a space solutions company that empowers business and government with integrated, purpose-built satellite and connectivity solutions.

Our PURPOSE
Space to make a difference
Our VISION
To transform space into a platform for innovation to create new possibilities
Our MISSION
We are building a secure collaborative space ecosystem that drives lasting human impact



>60 govt organizations



>10.9K TV channels



30 commercial airlines



8 of top 10 MNOS

Our fleet today


Multi-orbit, multi-band satellite network of GEO, MEO, with strategic access to LEO satellites



99%
coverage of the world's populated region



~150
teleports

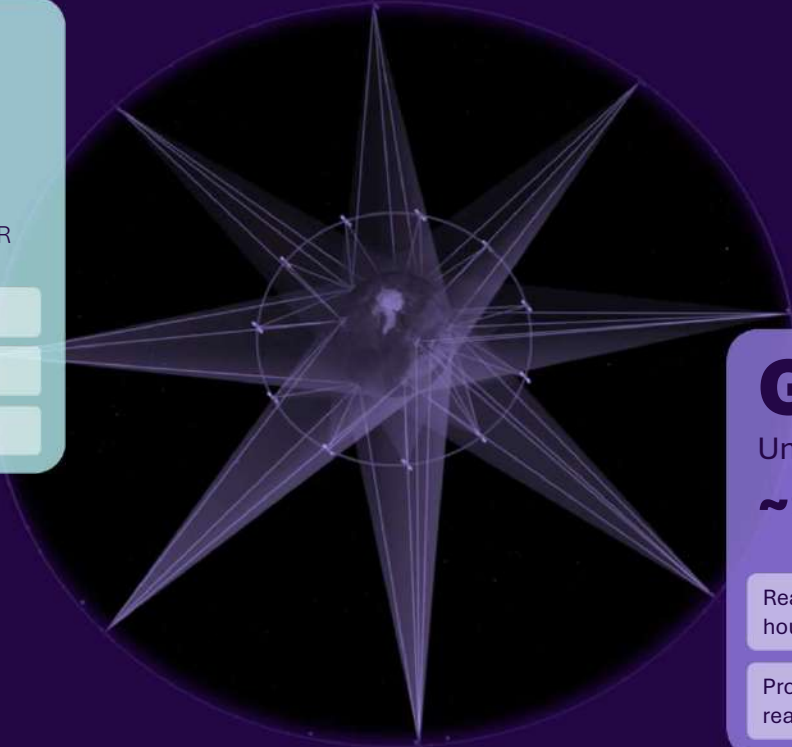


~50
Points of Presence (PoPs)

MEO Medium Earth Orbit
Fiber-equivalent data connectivity

~30 MEO HTS (O3b & O3b mPOWER)

- High throughput
- Low latency
- Unique flexibility



GEO Geostationary Earth Orbit
Unparalleled reach

~90 GEO

- Reaching **millions** of TV households **worldwide**
- Providing comprehensive reach to deliver **data connectivity**

A multi-orbit solution provider

with compelling vertical value propositions
and continued investment in innovation

Government



Support over **60** government organizations including the **US government**

Media



Deliver over **10,900** channels to nearly **2.3 billion** viewers worldwide

Aviation



Provide inflight internet to **30** commercial airline partners

Maritime



Serve **5 of the 6 major cruise lines** & leading provider of **GEO satellite bandwidth** for maritime passengers and crew

Fixed data



Serve **8 of the world's top 10** mobile network operators



SES on WRC-27



Agenda

- SES WRC-27 Introduction
- Spectrum opportunities – AI 1.2
- Spectrum risks – AI 1.19 & 1.7
- Regulatory changes – AIs 1.5, 7 & 9.2-9.3
- Radio Regulations Article 22 – EPFD limits
- Looking ahead – AI 10
- Q&A



WRC-27 Introduction



1. Harmonize global spectrum to create economies of scale, roaming and interoperability

3. Creating certainty requires consensus: time, efforts and patience

WRCs PURPOSE

2. Create regulatory certainty for a multi-trillion dollars industry playing an increasingly important role in the development of our societies

The continuous regulatory evolution

2 examples: 1 opportunity & 1 risk



Opportunity:



1st GSO ESIM regulations in portions of 19-20 & 29-30 GHz

ESIM = Earth stations in motion allowed in FSS bands under special conditions

Risk:



New IMT identification in 3.4-3.6 GHz in Regions 1 & 2 and parts of Region 3, and 3.6-3.7 GHz in parts of Region 2

IMT = International Mobile Telecommunications

2nd GSO ESIM regulations in more bands; 17-20 & 27-30 GHz

New IMT identification in > 37 GHz

1st NGSO ESIM regulations in Ku & GSO ESIM in 12.75-13.25 GHz

New IMT identification in 3.6-3.8 GHz in most of Regions 1 and 2 and in 6 GHz in Region 1

Next GSO & NGSO ESIM regulations in the 47-51 GHz range

Studying IMT in the 4.4-4.8, 7.1-8.4 & 14.8-15.4 GHz ranges

A first suggestion: Continued ISS in C-band, as 2.4 SES has additional initiatives...

A first suggestion: IMT in 102-275 GHz, as 2.6 Awaiting additional initiatives...

The fundamental regulatory balance

with SES actively playing both teams

Incumbents

maintaining stability
ensuring continued
performance



Newcomers

seeking opportunities
creating solutions
faster than ITU regulations

SES starting point

- targeting increased spectrum efficiency & flexibility to access spectrum while protecting existing services without restricted access to spectrum or constraining flexibility
- taking decisions based on thorough technical assessments enabling technological innovation
- seeking clear & predictable regulations managed with efficient regulatory procedures
- encouraging dialogue rendering long-term win-win solutions

SES WRC-27 focus

Risks & Opportunities

	Agenda Items
Ensure continued C- & X-band operations	1.7 1.19
Ensured continued FSS operations	1.5 1.6 1.10 1.16
New FSS spectrum	1.4
Improve GSO and NGSO regulations	1.1 1.2 1.3 7 9.2-9.3
New MSS spectrum	1.11-1.14
WRC-31 agenda items	10



Spectrum opportunities

Smaller antennas in 13.75 -14 GHz

Agenda Item 1.2

Agenda Item 1.2: Smaller antennas

What is it about?

To consider the use of smaller GSO and NGSO FSS earth stations in the uplink band 13.75-14 GHz to help alleviate the congestion in the uplink band

Description

- The Radio Regulations imposes limitations on the minimum size of the satellite earth station antennas operating in the 13.75-14 GHz band
 - >1.2m for GSO and >4.5m for NGSO, and
 - PFD and EIRP density limits
 - to protect the Radiolocation and Space Research Services

Aim

- To provide relaxation of antenna size for both GSO and NGSO FSS terminals
- Currently, there is a mismatch between only 500 MHz unplanned uplink and over 2 GHz downlink spectrum
- the uplink spectrum available for smaller terminals is not enough to address the increasing demand of FSS services

Current status of studies

- Studies consider possible revisions of RR Nos. 5.502 and 5.503 based on Resolution 129 (WRC-23)
- Majority of the studies show compatibility between smaller GSO and NGSO FSS earth stations sharing the band with Radiolocation service
- Studies with Space Research Service shows significant positive margin with respect to the protection of the service
- There is disagreement regarding the assumptions for deployment densities for aggregate GSO & NGSO systems
- There is a concern of increasing number of NGSO terminals due to a size relaxation

SES position

On Agenda Item 1.2: Smaller antennas in 13.75-14 GHz



SES supports removal of antenna size limitation on GSO and NGSO systems to use the band without size or power limitations, if possible

Recognizing the expressed risks of potential huge deployment of NGSO smaller terminals

Studies are necessary to consider appropriate regulatory actions

- Reviewing the antenna size limitations and power limitations associated to GSO and NGSO FSS earth stations while ensuring the protection of the services

SES also supports to only consider relevant incumbent services

Spectrum risks

Potential EESS (passive) and IMT entries

Agenda Items 1.19 & 1.7

Agenda Item 1.19: EESS

What is it about?

To consider possible allocations to the Earth exploration-satellite service (passive) in the 4.2-4.4 & 8.4-8.5 GHz frequency bands

Description

- To provide primary allocations to EESS (passive) in 4 & 8 GHz to complement its sea surface temperature (SST) measurements in 6 425-7 250 MHz band
- The possible new EESS (passive) allocations are without protection from existing services in-band and in adjacent bands

SES position

- Avoid any regulatory restrictions or technical constraints on existing services operating in-band or in adjacent bands

Current status of studies

- Some studies support new primary allocations to EESS (passive) based on Resolution 674 (WRC-23)
- Some studies show interference into EESS (passive) from unwanted emissions of IMT
- Debates on protection of the EESS (passive) from any possible new IMT identification in adjacent band under the Agenda Item 1.7

Next steps

- Finalize sharing and compatibility studies
- Develop methods for the draft CPM text

Agenda Item 1.7: IMT

What is it about?

To consider sharing and compatibility studies and development conditions for the use of IMT in the frequency bands 4.4-4.8, parts of 7.125-8.4, and 14.8-15.35 GHz for the terrestrial component of IMT

Description

- New IMT bands in parts of the 4, 7-8 & 14-15 GHz frequency ranges... but almost a standing Agenda Item for each WRC
- But entry of IMT into FSS bands will lead to substantial additional regulatory or technical constraints being imposed on those satellite services
- Large amounts of bandwidths have been identified for IMT already at previous WRCs, but not yet used

SES position

- Avoid any regulatory restrictions or technical constraints on satellite operating both in-band or in adjacent bands
- Effectively rendering a No Change position

Current status of studies

- WP 5D is processing a large amount of studies based on Resolution 256 (WRC-23)
- Differences in assumptions and methodologies lead to a variety of results
- Past studies (and real-life experience) between satellite services and IMT have already demonstrated that sharing between FSS/MSS downlink and IMT is not feasible and uplink compatibility depends heavily on IMT base station deployment assumptions
- To assess interference from existing services into a potential new IMT identification, so-called 'reverse studies' are also performed, but there is no agreement on how to treat them

Next steps

- Finalize sharing and compatibility studies
- Start development of methods for the draft CPM text

SES position

A summary of opportunities & risks



Studies are progressing but time is getting short to finalize draft CPM texts

- all are encouraged to support driving common texts into conclusion by focusing on ensuring that their supported methods are included

SES is actively contributing to the progress of ITU-R studies

- assessing the impact of suggested regulatory changes
- targeting increased spectrum efficiency while avoiding unreasonable regulatory restrictions or technical constraints on existing services in a careful step-by-step approach



Agenda

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- Spectrum risks – AI 1.19 & 1.7
- Regulatory changes – AIs 1.5, 7 & 9.2-9.3
- Radio Regulations Article 22 – EPFD limits
- Looking ahead – AI 10
- Q&A



Regulatory changes

Unauthorized earth stations

Agenda Item 1.5

Agenda Item 1.5: unauthorized earth stations

What is it about?

To limit the unauthorized operations of FSS & MSS earth stations in NGSO satellite systems, and associated issues related to the service area of FSS & MSS NGSO satellite systems

Description

- Resolves 1 on regulatory measures to limit unauthorized operations of earth stations in the **Earth-to-space direction** in order to address and cease such operations, taking into account technical and operational aspects, as appropriate
- Resolves 2 on regulatory measures, taking into account *recognizing c)* and the **implementability** of such measures, without adversely affecting services in the rest of the service area of the non-GSO satellite system

Current status of studies

- A replica for GSO has been suggested as a topic in Agenda Item 7
- No technical studies conducted based on Resolution 14 (WRC-23)
- Draft CPM text compiled from various inputs not discussed. Including 4 Methods with some with Options
- Methods proposing revisions to existing Resolutions more likely outcome compared to a new Resolution

ITSO interest in FWP Nov 2025

- General understanding that unauthorized earth stations should be prevented from deployment or operation without appropriate license/authorization
- **Specific measures risk impacting currently operational NGSO networks and deployed current earth stations with provisions, which ultimately may be applicable to NGSO and GSO systems**

Next steps

- Finalize development of draft CPM text incl. separate Methods for *resolves 1 & 2*
- Further developments may consolidate Methods & Options
- Ensure retention within Agenda Item scope, excluding GSO earth stations or transmissions in the Space-to-Earth direction

SES position

On Agenda Item 1.5: Unauthorized NGSO earth stations



Supports No Change to existing regulations

Apply practical, implementable and enforceable measures under existing regulations, to manage and limit unauthorized operation, such as by geolocation and remote deactivation, without excluding territories from the service area of NGSO systems

Enforce existing provisions to balance regulatory compliance with continuity in the provision of satellite services, through implementable mechanisms in current and future non-GSO system designs

Regulatory measures limiting coverage area (i.e. the area illuminated by the satellite system) or requiring explicit agreement for inclusion of territories in coverage area of a satellite system, fall outside the scope of Resolution 14 (WRC-23)

Excluding territories from the service area of a non-GSO satellite system, has limited effect on unauthorized earth station transmissions. Considering also implementability and possible adverse effects on services in the rest of the service area.



Regulatory changes Satellite procedures

Standing Agenda Items 7, 9.2 & 9.3

Agenda Item 7: satellite procedures

What is it about?

A standing Agenda item considering possible changes to satellite coordination, notification and recording procedures for frequency assignments pertaining to satellite networks

Description

- WRC should consider any proposals which deal with **deficiencies and improvements** in the advance publication, coordination, notification and recording procedures of the RR for frequency assignments to space services
- The Resolution invite WRCs to ensure that these RR procedures reflect the latest technologies, as far as possible

- The meeting almost had a formal consensus for a 5-matter compromise
- But now ITU-R WP4A is later than ever
- 1.5 meetings left to finalize draft CPM text
- So how to best go from here to make it work?

Current status of studies

- 5 matters received general support to be studied as Topics, based on Resolution 86 (Rev. WRC-07)

Next steps

- The first focus at the next WP 4A meeting will be to agree on Topics to be considered under AI 7
- Next focus will be to draft, advance and streamline CPM text on these, noting that some matters still lack such texts

SES AI 7 positions – on the 5 supported topics

The 5 matters with general support as topics	In addition to supporting as topics, SES:
RR No. 4.4 <i>Deficiencies in, and Improvements to the RR API, Notification and Recording procedures relating to frequency assignments to stations of space services to be operated under No. 4.4</i>	<ul style="list-style-type: none"> • Supports to transfer RoP into RR • Could support measures like information gathering such as duration of use, reason of invoking No. 4.4 etc, noting that WRC-23 already did a lot • Prefers to avoid too stringent or drastic restrictions, and thereby avoiding unintended consequences • Considers it crucial that 4.4 may never be interpreted as any kind of acquired priority
Coordination Arc in bands where there is none (excluding 8/7 GHz and 30/20 GHz)	<ul style="list-style-type: none"> • Supports as a typical role-model AI 7 topic • Improves the efficiency of coordination procedures, reduces workload and resources of administrations & BR, and possibly the use of No.11.41 • Considers the restricted scope is appropriate in this uniquely late stage in the WRC study cycle
Modification to RR Appendix 4	<ul style="list-style-type: none"> • Support to transfer RoP into RR with already stable draft CPM text
Revision of Resolution 553 (Rev.WRC-23)	<ul style="list-style-type: none"> • Intends to review each proposed method when draft CPM text is available
Revision of Resolution 170 (Rev.WRC-23)	<ul style="list-style-type: none"> • Notes proposals lacking technical justification in the current proposals

SES AI 7 positions – on the ITEM* for status review

The 6 ITEM* matters	In addition to being cautious in considering any of them as additional Topics, SES:
Repeat B/BIU	<p>Opposes this initiative as topic since:</p> <ul style="list-style-type: none"> • BR statistics show that such BIU/BBIU cases are rare and very specific • there could also be valid reasons for administrations to do so • it could jeopardize the process of B/BIU of some administrations that are facing new satellites to BIU and replacements
RR No. 11.41 – one letter evidencing	<p>Could accept it as a topic even if not agreeing that evidence of coordination efforts are needed, as they are already required</p>
RR No. 11.41 – restrict submissions	<p>Opposes this initiative as topic since:</p> <ul style="list-style-type: none"> • 11.41 is a fundamental provision that allows administrations to notify their satellite networks and operate when completion of coordination is not possible (numerous cases) despite the efforts made
RR No. 11.44B /Capability	<p>Opposes this initiative as topic since:</p> <ul style="list-style-type: none"> • will reopen the delicate compromise from WRC-12 on very sensitive BIU provisions of 11.44 and thereby require a lot of resources • since additional evidencing of BIU capability is not easily drafted to make a difference nor agreed and risks leading to unreasonable restrictions being imposed on space stations used for BIU/BBIU • which in turn could jeopardize the process of B/BIU of some administrations
Unrealistic gain contours	<p>Opposes this initiative as a topic since:</p> <ul style="list-style-type: none"> • even if it theoretically should be clarified/improved, we see no realistic and reasonable way to define what BR would consider unrealistic • which is why this matter even if being raised in the BR Director’s 9.2 report have not lead to any agreed changed regulations
Responsibility of Notifying Administration	<p>Opposes this initiative as a topic since:</p> <ul style="list-style-type: none"> • the matter is not yet well defined and address issues that have not necessarily materialized in practice • for global operators working with multiple administrations, redefining or reallocating responsibility could create complexity rather than clarity

AI 7 positions – SES as part of GSOA

A united industry



SES summary

- Proposals that were withdrawn should not be reconsidered
- No new proposal should be considered at the next meeting
- The compromise solution with 5 proposals already identified as topics should be maintained
- 6 topics should be the maximum number of topics that can be adequately studied with the remaining time before the WRC, to not overload the study workload, as the last meeting almost agreed
- Any 2 existing proposals should not be merged into one topic, as it wouldn't reduce the overall workload
- Non-retroactivity should be applied across all topics

GSOA summary

- Limit AI 7 to maximum 6 definitive topics, reflecting previous WP4A compromises
- Study the 5 matters with general support, without reopening discussions, considering CPM deadlines
- GSOA could support RR No. 11.41 as a 6th topic if strictly limited to demonstrating coordination efforts
- Clearly define the scope of each topic to guide studies and avoid unintended impacts
- Do not merge topics, as this does not reduce the study workload
- Preserve regulatory stability and non-retroactivity

Agenda Item 9.3: RRB Report

What is it about?

On action in response to Resolution 80 (Rev.WRC-07) from the Radio Regulations Board

Description

- to consider and approve the Report of the BR Director, in accordance with Article 7 of the ITU Convention
- in response to the Report from the Radio Regulations Board (RRB)

Current status of studies

- The draft Report is not yet available
- But some matters have been listed in the minutes of the RRB meetings to be raised in the RRB Report to WRC-27

ITSO interest in FWP Nov 2025

- Observe any potential impact on GSO Ku band corrections in relevant procedures

SES interest

- Observe any potential impact on GSO & NGSO in most satellite bands corrections in relevant procedures

Agenda Item 9.2: BR Director Report

What is it about?

On any difficulties or inconsistencies encountered in the application of the Radio Regulations

Description

- to consider and approve the Report of the Director of the Radiocommunication Bureau (BR), in accordance with Article 7 of the ITU Convention
- 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

Current status of studies

- Administrations are invited to inform the BR Director of any difficulties or inconsistencies encountered in the RR
- But the draft Report is not yet available

ITSO interest in FWP Nov 2025

- Observe any potential impact on GSO Ku band corrections in relevant procedures
- [Inputs on studies of the epfd from NGSO into GSO systems](#)

SES interest

- Observe any potential impact on GSO & NGSO in most satellite bands corrections in relevant procedures
- [Inputs on **technical studies** of the RR Article 22 epdf from NGSO into GSO systems](#)



RR Article 22 – EPFD Revision

Background

Article 22 – EPFD Revision

- Extensive debates were held over the WRC-23 on the possible EPFD* update
- As a conclusion, WRC-23 invited ITU-R to conduct **technical studies** on the EPFD limits in Article 22, including the limits referenced in No. 22.5K, with the objective of ensuring the continued protection of GSO FSS and BSS networks, and to report back to WRC-27 on the results
- Following the invitation of WRC-23,
- SES has conducted **technical studies**
- SES has a balanced vision, as a multi-orbit satellite capacity provider with the largest GSO fleet in the world, plus a successful non-GSO satellite system operating in medium-Earth orbit for more than a decade
- EPFD limits discussions will likely again be a hot topic of WRC-27



SES position on EPFD Limits

Our core position

The GSO protection is what matters

Preserve the EPFD framework as regulatory solution

Preserve existing EPFD limits in Ku band

Redefine the EPFD limits in Ka band

SES position on EPFD Limits

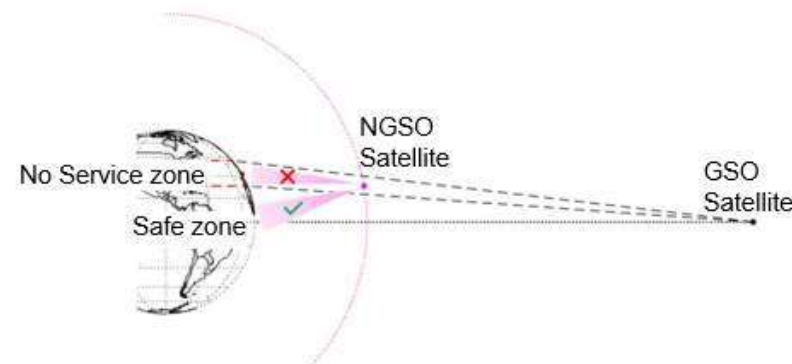
The GSO protection is what matters

RR. Article 22.2 principles must prevail: 'NGSOs must protect GSOs.'

- By its dynamic nature, NGSOs have the operational tools to protect GSOs
- By its static nature, GSOs can not implement protection measures to mitigate interference from NGSOs or to protect them

The protection needs are not to be disturbed

- The GSO/GSO interference environment is not representative of non-GSO/GSO
- ITU-R Recs. S.1323 and S.1432 are not only political compromises and still stand
- Aggregate EPFD limits are needed
- Clarity and predictability interference environments are key for GSO operations
- Interference in Ku would mean disruption of service for millions/billions of people



SES position on EPFD Limits

Preserve the EPFD framework as regulatory solution

The EPFD framework has numerous advantages

- Well established framework, proven to work
- **Providing clarity on the interference environment**, crucial to design GSO links
- All the regulatory tools exist today

New proposed framework (throughput degradation/absolute increase in unavailability)

- Based on Q/V frequency bands framework although Q/V has relative increase in unavailability
- Absolute increase in unavailability means that GSO performance will be capped forever
- Throughput degradation does not provide any transparency or measurability
- And works only for ACM* links

*ACM: Adaptive Coding and Modulation.

SES position on EPFD Limits

Preserve existing EPFD limits in Ku band

Ku band limits have been well scrutinized

- GSO parameters are still relevant
- ITU-R Recommendation S.1323 is well aligned with EPFD limits
- Hundreds of links were used in the studies to derive the Ku band EPFD limits

Ku band limits need an EPFD approach

- A very high percentage of Ku band links operate non-ACM
- Most used spectrum for GSOs
- Need for clarity and predictability interference environment

SES position on EPFD Limits

Redefine the EPFD limits in Ka band

Ka band limits present apparent deficiencies

- Discrepancy between upper and lower parts of the Ka band could not be explained
- Difference in antenna sizes
- Link with GSO protection difficult to understand
- ACM technology has largely evolved

Ka band to be the focus

- Ka-band Reference GSO links need an update, as their parameters have largely evolved
- WP4A has identified an updated EPFD derivation process
- Many different players are interested in the band



Looking ahead
Next WRC Agenda 2031

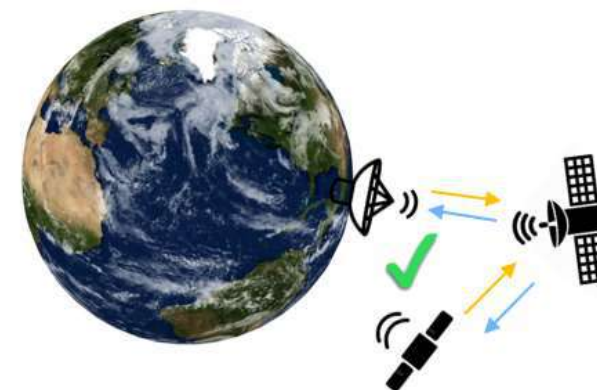
Agenda Item 10

AI 10: The next WRC-31

C-band Data Relay (Inter-Satellite Service)

Optimize use of existing GSO satellites in C-band

- Inter-satellite service allocations in the 3700-4200 MHz and 5 925-6 425 MHz to enable links between NGSO and GSO
- To allow GSO C-band satellites to provide data relay service for LEO satellites
- Typically used for sending tasking command to earth observation satellites. Allows EO satellite constant communication instead of having to wait 90+ minutes until the LEO satellite passes over its designated GW
- Provide an interesting commercial opportunity to optimise the use of existing GSO satellites in C-band
- WRC-23 adopted Resolution 683 that set it as a Preliminary agenda item for WRC-31. It needs to be confirmed at WRC-27.
- The natural next step after being introduced in FSS Ka-band, and then studied in MSS < 3GHz



Thank you



WRC -27 Implications for the ITSO Common Heritage

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20th April 2026

ITU World Radiocommunication Conference 2027

18 October – 12 November 2027

Shanghai, China



Radiocommunication Assembly 2027 (RA-27)

11 October – 15 October 2027

Shanghai, China

Agenda

1

WRC-27 & ITSO Common Heritage - Overview

2

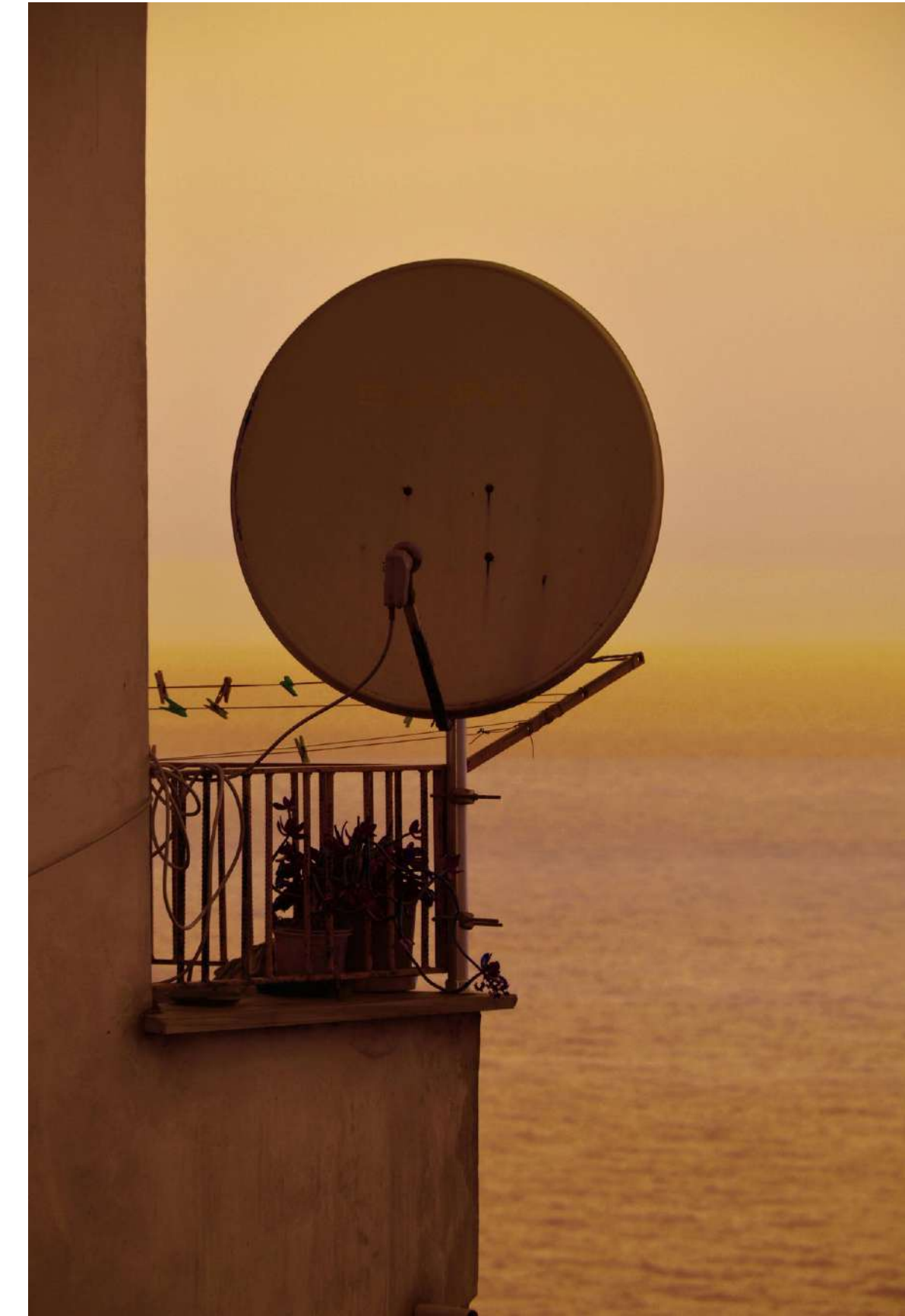
WRC-27 Implications for the ITSO Common Heritage

- **Agenda Item 1.2**
- **Agenda Item 1.4**
- **Agenda Item 1.5**
- **Agenda Item 7**
- **Agenda Items 9.2, 9.3 & 10**

WRC-27 & ITSO Common Heritage - Overview

WRC-27 & ITSO Common Heritage–Overview

- WRC 27 includes 19 agenda items specific to WRC 27 plus the standard agenda items: 2, 4, 5, 6, 7, 8, 9.1, 9.2, 9.3, 10 dealing with status of Recommendations, Reports of ITU-R, preparation of WRC-31
- ITSO has reported to FWP on the draft Agenda of WRC-27 after the WRC-23 as well as on updates on the progress of the studies within ITU-R, mostly WP 4 A
- ITSO has identified several agenda items with higher potential to impact on the exploitation of the Common Heritage
- The major modifications of the evolution of CH over years were due to WRC decisions on the procedures governing Space services, resulting on the cancellation of many orbit-spectrum resources (frequency assignments) which were originally transferred to the Company back in 2001, therefore decisions of WRC have high potential to impact on the CH



WRC-27 Implications for the ITSO Common Heritage

Agenda Items of Potential Impact on the CH

AGENDA1.2

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 COM6/1 (WRC-23)

AGENDA1.4

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

AGENDA1.5

Studies on development of regulatory measures, and implementability thereof, to limit the unauthorized operations of non-geostationary-satellite orbit (non-GSO) earth stations in the fixed-satellite service (FSS) and mobile-satellite service (MSS) and associated issues related to the service area of non-GSO FSS and MSS satellite systems

WRC-27 Implications for the ITSO Common Heritage

Agenda Items of Potential Impact on the CH

AGENDA 7

Regulatory procedures. Resolution 85
Review of governance procedures of space services including advance publication, coordination & notification. Rules of Procedures. Considerations on efficient & economical use of spectrum & orbits

AGENDA 9.3

Report RRB. Resolution 80
Elements for consideration under this agenda item used to be based on the ITU BR Director Report, in light of RRB report, which is issued shortly before the WRC

AGENDA 9.2

Inconsistencies Radio Regulations
Elements for consideration under this agenda item used to be based on the ITU BR Director Report which is issued shortly before the WRC

AGENDA 10

Future agenda items for WRC-31

WRC-27 Implications for the ITSO Common Heritage

Agenda Item 1.2

- 1.2 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)

Identified impact:

Potential benefit for exploitation of CH in the few orbital locations and specific frequency ranges and Intelsat networks notified as part of the CH (Intelsat 7 at 325.5E and Intelsat 8 at 328.5 E)

It is not expected that there will be numerous small earth stations to be deployed with the above networks and consequently, the benefit of exploiting small earth stations would be limited.



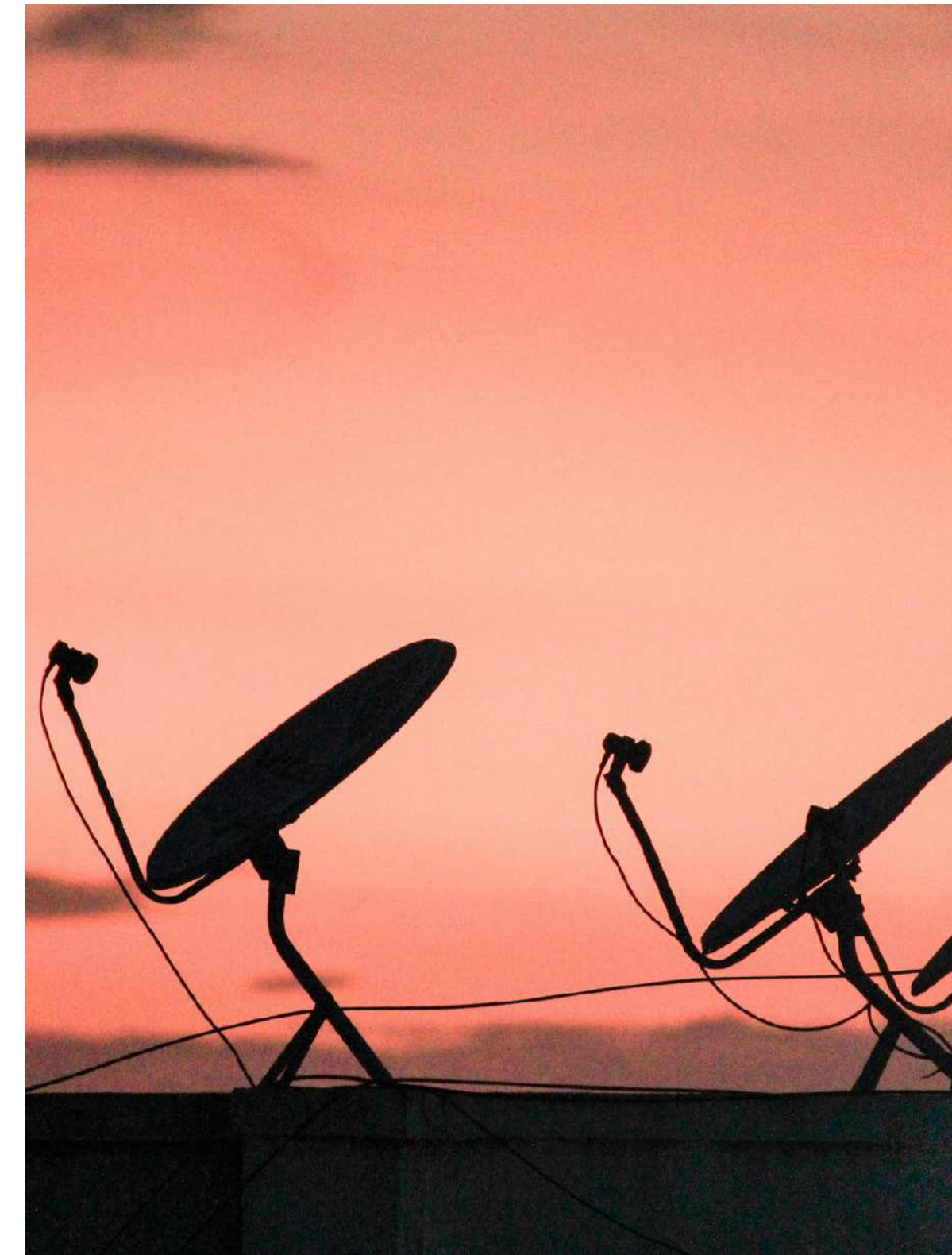
WRC-27 Implications for the ITSO Common Heritage

Agenda Item 1.4

- 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

Identified impact:

Potential, direct or indirect, impact on the use of this frequency range by some networks of the UK NA Common Heritage. There is possible application to Regions 1 and 3, the same single-entry epfd limits to emissions radiated by non-GSO systems agreed at WRC-23 in Region 2 for the frequency band 17.3-17.7 GHz and, possible extension of the aggregated epfd limits to emissions radiated by non-GSO systems from the frequency band 17.8-18.6 GHz defined in Resolution 76 to the frequency band 17.3-17.7 GHz. It is also possible to keep unchanged the other existing conditions applicable for FSS to Region 1 in the frequency band 17.3-17.7 GHz under consideration



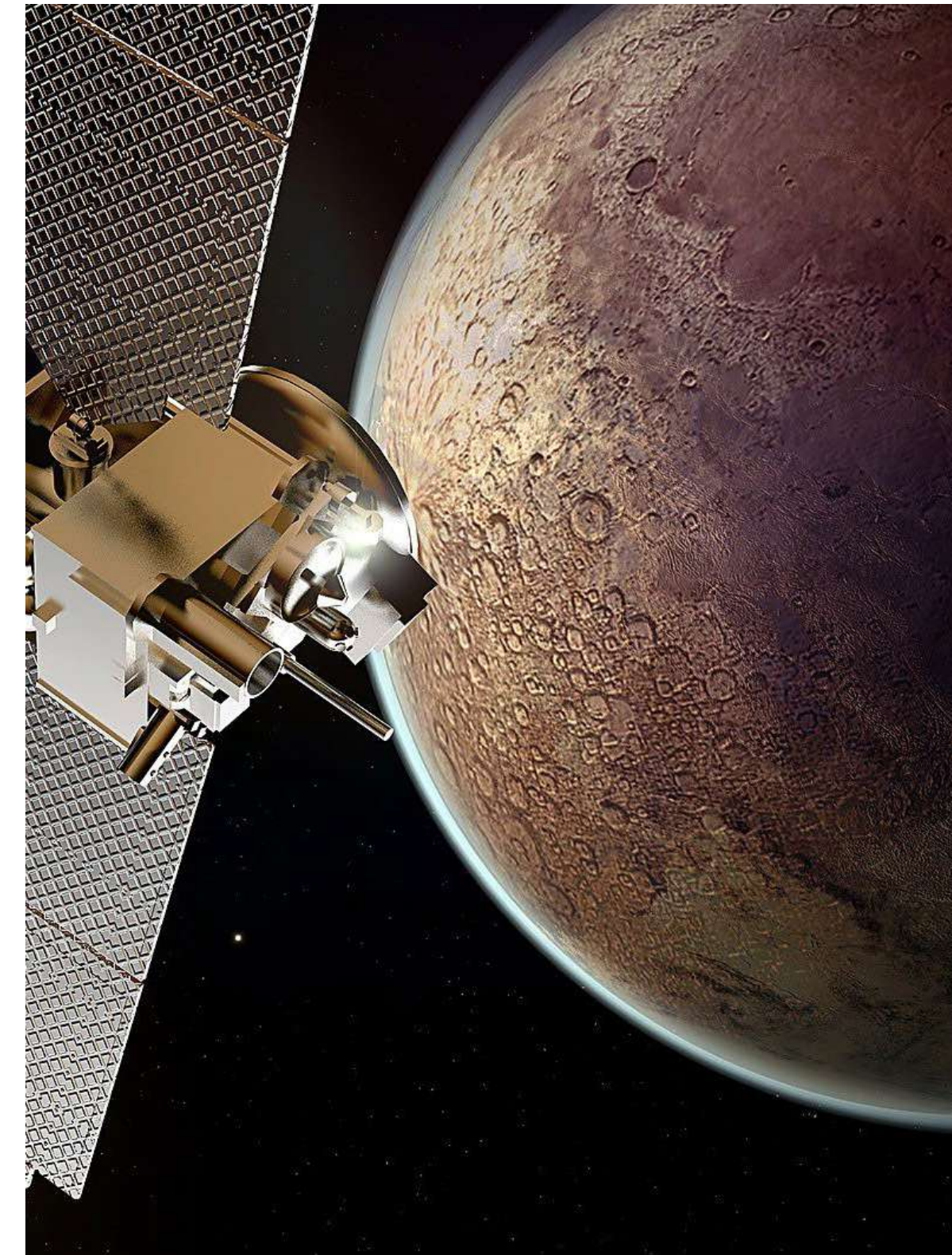
WRC-27 Implications for the ITSO Common Heritage

Agenda Item 1.5

- Studies on development of regulatory measures, and implementability thereof, to limit the unauthorized operations of non-geostationary-satellite orbit (non-GSO) earth stations in the fixed-satellite service (FSS) and mobile-satellite service (MSS) and associated issues related to the service area of non-GSO FSS and MSS satellite systems

Identified impact:

While there is a general understanding that unauthorized earth stations should be prevented from their deployment when no required license/authorization is provided, the specific measures to be implemented may risk deployment of current earth stations with very strict provisions, which ultimately may be applicable to NGSO and GSO systems. Avoidance of possible additional burden to authorizing administrations to issue explicit agreements.



WRC-27 Implications for the ITSO Common Heritage

Agenda Item 7

Candidate Topics

- Application of RR No. 4.4 to space/satellite services. Deficiencies in, and improvements to the advance publication, notification and recording procedures of the RR relating to frequency assignments to stations of space services to be operated under RR No. 4.4
- Restrain Repeated BIU/BBIU. The use of the same satellite or different satellites to repeatedly bring into use and bring back into use the same frequency assignments of a satellite network or system for a short period of time.
- Repeated BIU/BBIU. Within 0.5 degrees of longitude of the physical satellite) without moving the satellite (“hop without move”)
- Recording of frequency assignments in space services under RR No. 11.41
- Assessing the potential advantage to define coordination arc for some frequency bands above 3.4 GHz (or in the range 3.4 – 17 GHz)
- Modifications of RR Appendix 4

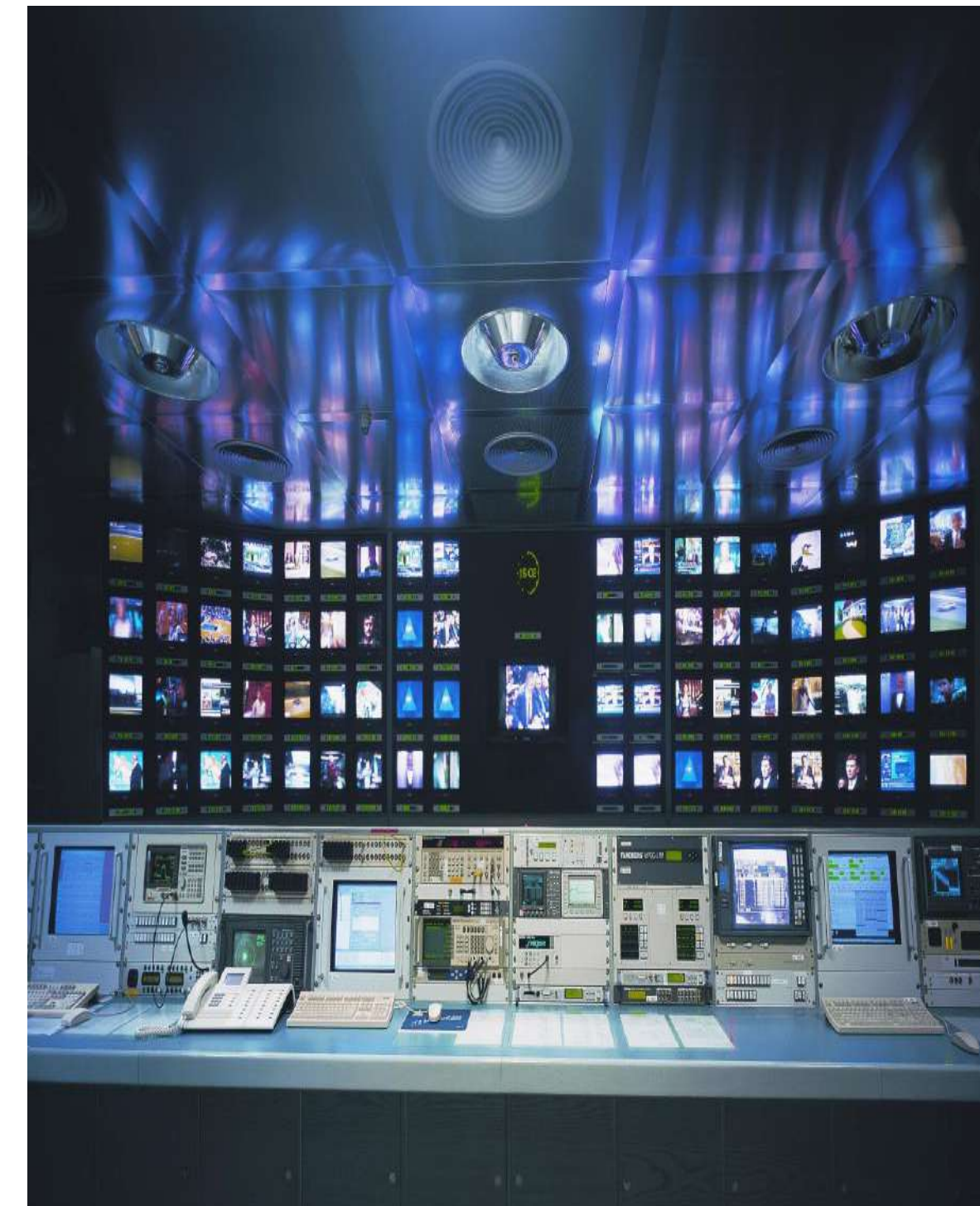


WRC-27 Implications for the ITSO Common Heritage

Agenda Item 7

Candidate topics

- Resolution 553 (Rev.WRC-23) (21.4-22 GHz frequency band. Not interest for ITSO.
- Resolution 170 (Rev.WRC-23). Related to Appendix 30 B. Not related to frequency bands of CH
- RR No. 11.44B/Capability
- Inclusion of the territory of a country in the service area of a notified geostationary (GSO) satellite networks in the planned and unplanned BSS frequency bands and in the planned FSS frequency bands subject to Appendices 30A and 30B, without imposing new coordination restrictions to satellite networks already submitted to the Bureau
- Unrealistic gain contours
- Enhancing the responsibility of the notifying administration of a satellite network and/or system
 - a) Designation of the responsible administration for a consolidated network or system;
 - b) Enhancing the responsibility of the notifying administration for the actions of the satellite operator using the filed RF spectrum.



WRC-27 Implications for the ITSO Common Heritage

Agenda Item 9.2- Inconsistencies Radio Regulations

Identified Impact:

Observe any potential impact of regulatory procedures applicable to the GSO C and Ku bands

Agenda Item 9.3- Report RRB. Resolution 80.

Identified Impact :

Observe any potential impact of regulatory procedures applicable to the GSO C and Ku bands

Agenda Item 10- Future Agenda Items WRC-31

Identified Impact :

Observe any potential impact of regulatory procedures applicable to the GSO C and Ku bands



Next steps

During study cycle

Possible multi-country contributions coordinated or supported by ITSO at the initiative of ITSO Parties, SES and/or ITSO Secretariat

Contributions to the WRC-27

Possible contribution from ITSO to WRC-27 on views with respect to some WRC-27 agenda items with potential to impact the Common Heritage



ITU-R studies which may come to WRC-27



Review of the limits of Art 22 limits of NGSO to protect GSO

Several ongoing studies: Analysis of the protection provided by Article 22 epfd limits to GSO FSS networks in the 10.7-12.75 GHz band, Elements on Ku GSO networks protection, etc.

Review of the computations of epfd to check compliance against Art 22 limits

Recommendation ITU-R S.1503-4 defines a methodology to be used to determine conformity of a non-geostationary-orbit (non-GSO) satellite system in the fixed-satellite service (FSS) with the equivalent power flux-density (epfd) limits contained in RR Article 22 of the Radio Regulations (RR). This methodology computes the epfd of a non-GSO satellite system into a GSO satellite



ITU-R Resolution 69



What Res 69 targets?

- ITU R continues to collaborate with ITU D on satellite technologies and applications as defined in ITU R Recommendations and Reports and on satellite regulatory procedures in the Radio Regulations that will help developing countries with development and implementation of satellite networks and services;
- ITU R and ITU D to support the development and deployment of international public telecommunication services via satellite in developing countries;
- ITU R to study possible additional regulatory measures to facilitate the development, deployment and availability of international public telecommunications via satellite in developing countries,
- ITU D to organize workshops, seminars and training courses that specifically address sustainable and affordable access to satellite telecommunications, including broadband connectivity, ITU D and ITU R to assist developing countries to extend and enhance the capacity-building activities on the use of broadband connectivity via satellite;

Opportunities for ITSO Parties and SES to contribute

- ✓ Contributions to ongoing studies of WP 4B (mostly) and WP 4 A
- ✓ Contributions to international and national events focused on broadband satellite
- ✓ Contributions to ITU D SG 1 on Q1/1
- ✓ Possible ITSO seminar 2026/2027 on identification of international and national Recommendations, Reports, Use Cases, National Policies addressing broadband satellite solutions