



WRC-19 Decisions on Agenda item 1.4 and EPM levels of 31 ATU member states in the BSS Plan

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WORKSHOP ON WRC-19 AGENDA ITEM 1.4
17th – 21st February 2020
Nairobi, Kenya

WRC-19 Agenda Item 1.4

- ✓ Review, and revise if necessary, the limitations mentioned in Annex 7 to Appendix **30** (Rev.WRC-15)
- ✓ Ensuring the protection of, and without imposing additional constraints on, assignments in the Plan and the List and the future development of the broadcasting-satellite service within the Plan, and existing and planned fixed-satellite service networks;

WRC-19 Decisions on Agenda Item 1.4

1. Review, and revise if necessary, the limitations mentioned in Annex 7 to Appendix 30 (Rev.WRC-15)

Suppressed the following orbital limitations in Annex 7 to Appendix 30:

✓ **in Regions 1 and 3:**

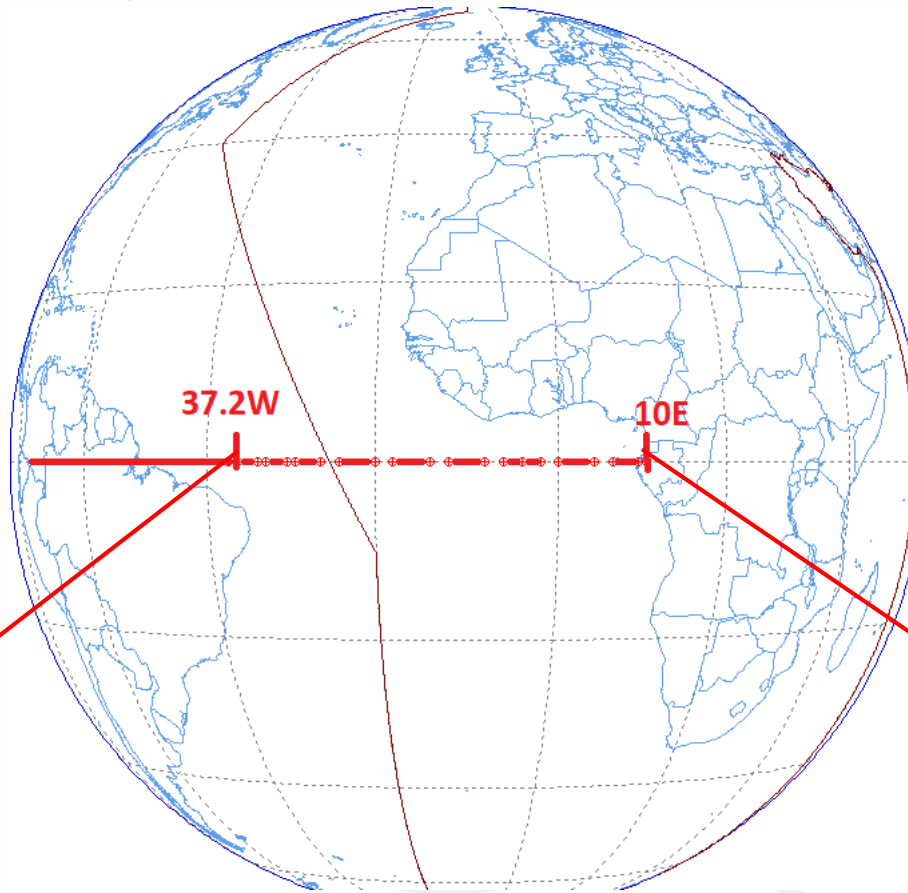
- serving an area in Region 1 and using a frequency in the band 11.7 – 12.2 GHz at a nominal orbital position further west than 37.2° W;
- serving an area in Regions 1 and 3 and using a frequency in the band 11.7 – 12.2 GHz at a nominal orbital position within the GSO arcs of 35.99°W to 33.51°W, 32.49°W to 30.01°W, 28.99°W to 26.01°W, 23.99°W to 20.01°W, 17.99°W to 14.01°W, 11.99°W to 8.01°W, 5.99°W to 4.01°W, 3.99°W to 2.01°W, 0.01°E to 3.99°E, 6.01°E to 8.99°E and 9.01°E to 10°E.

✓ **in Region 2:**

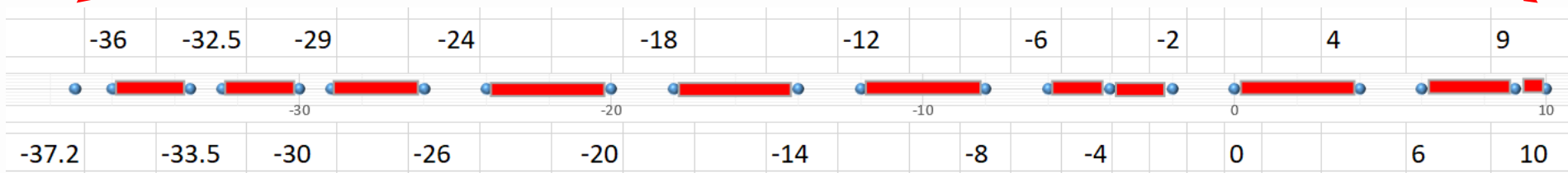
- Serving an area in Region 2 and using a frequency:
 - *further east than 54W in the band 12.5 - 12.7 GHz*
 - *Further east than 44W in the band 12.2 – 12.5 GHz*

Date of entry into force: 23 November 2019

Annex 7 before 23.11.2019: No BSS in 11.7-12.2 GHz at an orbital position in GSO arc shown in red



All these forbidden GSO arcs have been allowed by WRC-19 and, as of 23.11.2019, administrations in Region 1 or Region 3 can submit Art.4 networks in 11.7-12.2 GHz including Region 1 in service area.





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2. *Ensuring the protection of, and without imposing additional constraints on, assignments in the Plan and the List and the future development of the broadcasting-satellite service within the Plan, and existing and planned fixed-satellite service networks;*

✓ **Adopted 2 new Resolutions:**

- RESOLUTION COM5/2 (*To be renumbered as 558*) (WRC-19): **Use only coordination arc and EPM criteria to protect certain 40/45 cm assignments from certain new Article 4 networks in the band 11.7 – 12.2 GHz.**
- RESOLUTION COM5/4 (*To be renumbered as 768*) (WRC-19): **Use of test-points instead of grid points to protect certain new BSS networks from certain new FSS networks.**

WRC-19 Decisions on Agenda Item 1.4



Suppressing certain limitations in Annex 7 to Appendix 30, WRC-19 also adopted **RESOLUTION COM5/3** (*To be renumbered as 559*) (WRC-19) giving first priority access to those forbidden GSO arcs to certain administrations with the aim to find new Plan assignments with better EPM values.



RESOLUTION 559 (WRC-19) [COM5/3]

Additional temporary regulatory measures following the deletion of part of Annex 7 to Appendix 30 (Rev.WRC-15) by WRC-19

- Conditions to identify which administrations can apply the Special Procedure.
- Special Procedure to be applied by eligible Administrations with the aim to find new Plan assignments with better EPM values (greater than -10 dB).
- The period of time the Special Procedure can be applied.
- The frequency bands and orbital positions that are subject to Special Procedure
- Assistance provided by the Bureau
- The date of receipt of submissions

RESOLUTION 559 (WRC-19):

Additional temporary regulatory measures following the deletion of part of Annex 7 to Appendix 30 (Rev.WRC-15) by WRC-19

➤ Conditions to identify which administrations can apply the Special Procedure.

- 1 The special procedure can only be applied once by an administration with:
 - a) no frequency assignments submitted on its own behalf and either included in the List or for which complete Appendix 4 information has been received by the Bureau in accordance with the provisions of § 4.1.3 of Appendix 30; and
 - b) an assignment in the Regions 1 and 3 Plan of Appendix 30 when the equivalent downlink protection margin (EPM) value corresponding to a test point of its national assignment in the Regions 1 and 3 Plan is equal to or below -10 dB for at least 50% of the total number of EPM values of the assignment in the Regions 1 and 3 Plan in Appendix 30.

The Bureau identifies the administrations that meet the above conditions and inform these administrations.

RESOLUTION 559 (WRC-19):

Additional temporary regulatory measures following the deletion of part of Annex 7 to Appendix 30 (Rev.WRC-15) by WRC-19

➤ How to apply the Special Procedure. (1)

Administrations seeking to apply this special procedure shall submit their request to the Bureau, with the information specified in § 4.1.3 of Appendices 30 and 30A, which shall include, in particular:

- a) in the cover letter to the Bureau, the information that the administration requests the use of this special procedure together with the name of the Plan assignments identified by the Bureau in its Circular Letter;*
- b) a service area limited to the national territory as defined in the relevant Bureau software application;*

RESOLUTION 559 (WRC-19):

Additional temporary regulatory measures following the deletion of part of Annex 7 to Appendix 30 (Rev.WRC-15) by WRC-19

➤ How to apply the Special Procedure. (2)

- c) *a set of a maximum of 20 test points inside the national territory;*
- d) *a minimal ellipse determined by the set of test points submitted in c) above using the relevant Bureau software application. An administration may request the Bureau to create such a diagram;*
- e) *a maximum ten consecutive odd or even channels with standard Appendix 30 assigned frequencies in the same polarization for a Region 1 administration or twelve consecutive odd or even channels with standard Appendix 30 assigned frequencies in the same polarization for a Region 3 administration with a bandwidth of 27 MHz;*
- f) *a corresponding submission for the Appendix 30A feeder-link Plan in compliance with the principles defined in items b), c), d) and e) above.*

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Additional temporary regulatory measures following the deletion of part of Annex 7 to Appendix 30 (Rev.WRC-15) by WRC-19

➤ How to apply the Special Procedure. (3)

3 *Upon receipt of the complete information from an administration sent under § 2 above, the Bureau shall process the submissions in date order in accordance with Article 4 of Appendices **30** and **30A**.*

4 *The notifying administration shall request subsequent WRCs to consider the inclusion of these assignments in the Appendices **30** and **30A** Plans as a replacement of its national assignments appearing in the Plans, pursuant to § 4.1.27 of Article 4 of Appendices **30** and **30A**. Under this Resolution, footnotes 10 and 12 associated with § 4.1.27 of Article 4 of Appendices **30** and **30A**, respectively, are not applicable.*

RESOLUTION 559 (WRC-19):

Additional temporary regulatory measures following the deletion of part of Annex 7 to Appendix 30 (Rev.WRC-15) by WRC-19

- The period of time the Special Procedure can be applied.
- 1 ONLY from **23 March 2020 until 21 May 2020** to submit the request to the Bureau and they all have the same date of receipt of 21 May 2020; the request sent before 23 March 2020 shall be returned to the administration;
- 2 The corresponding submissions under § 4.1.12 of Appendices 30 and 30A shall be sent to the Bureau before 21 May 2028.
- 3 Once the assignments enter in the List, the notifying Administration shall request the next WRC to consider the inclusion of these assignments in the Appendices **30** and **30A** Plans as a replacement of its national assignments appearing in the Plans, pursuant to § 4.1.27 of Article 4 of Appendices **30** and **30A**.

RESOLUTION 559 (WRC-19):

Additional temporary regulatory measures following the deletion of part of Annex 7 to Appendix 30 (Rev.WRC-15) by WRC-19

- Orbital positions and frequency bands that are subject to Special Procedure:

at an orbital position of orbital arcs for which the Annex 7 to Appendix 30 (Rev.WRC-15) limitations were suppressed by WRC-19 and in the frequency bands 11.7-12.5 GHz in the downlink and 14.5-14.8 GHz/17.3-18.1 GHz in the feeder-link.

At different orbital position, you shall follow normal procedure as outlined in Article 4.

RESOLUTION 559 (WRC-19):

Additional temporary regulatory measures following the deletion of part of Annex 7 to Appendix 30 (Rev.WRC-15) by WRC-19

- Specific assistance provided by the Bureau up to 21 May 2020
at the request of administrations identified in *instructs the Director of the Radiocommunication Bureau* 1 which have the intention to apply the procedure indicated in this Resolution, to assist and advise them to comply with the conditions described in the Attachment to this Resolution, including the identification of appropriate new orbital positions and frequency channels.
- In order to identify appropriate new orbital positions, requesting administrations should provide the Bureau with minimum elevation angle, a set of maximum 20 test-points.

RESOLUTION 559 (WRC-19):

Additional temporary regulatory measures following the deletion of part of Annex 7 to Appendix 30 (Rev.WRC-15) by WRC-19

- The date of receipt of submissions received by the Bureau from 23 November 2019 until 21 May 2020:
 1. For Article 4 submissions in Regions 1 and 3 at an orbital position of orbital arcs for which the Annex 7 to Appendix **30 (Rev.WRC-15)** limitations were suppressed by WRC-19 and in the frequency bands 11.7-12.5 GHz in the downlink and 14.5-14.8 GHz/17.3-18.1 GHz in the feeder-link:
 - ✓ In application of the Special Procedure:
 - If received before 23 March 2020: not receivable and returned to the notifying administration.
 - If received between 23 March 2020 and 21 May 2020: 21 May 2020
 - ✓ Not in application of the Special Procedure: 22 May 2020
 2. For Article 4 submissions in Regions 1 and 3 at an orbital positions of orbital arcs which were not forbidden before WRC-19 or Article 4 submissions in Region 2: date of receipt is the date when the Bureau receives the submissions.
 3. For non-plan submissions: date of receipt is the date when the Bureau receives the submissions.



EPM of Plan assignments of 31 ATU members

			Downlink		Feeder-link	
Adm	Name	Pos	Min EPM	Max EPM	Min EPM	Max EPM
AFS	South Africa	4.8	-18.799	-16.599	-37.538	-28.41
BDI	Burundi	11	-17.719	-15.369	0.354	4.413
BEN	Benin	-19.2	-18.286	-14.474	4.133	11.142
BOT	Botswana	-0.8	-20.996	-17.806	-26.662	-20.563
COD	Congo	-19.2	-18.765	-12.146	-5.471	-1.248
COG	Congo	-13.2	-14.862	-10.056	9.427	13.749
COM	Comoros	29	-17.68	-15.841	4.756	7.026
DJI	Djibouti	16.8	-21.49	-20.502	4.453	7.979
GAB	Gabon	-13.2	-14.646	-10.247	2.108	7.843
GNE	Equatorial Guinea	-18.8	-16.867	-14.32	12.898	16.151
KEN	Kenya	-0.8	-18.228	-13.33	-29.411	-27.035
LSO	Lesotho	4.8	-19.04	-15.711	-16.599	-14.363
MAU	Mauritius	29	-18.762	-13.511	-15.836	-12.156
MDG	Madagascar	29	-18.106	-15.14	-15.319	-10.866
MLI	Mali	-19.2	-18.202	-13.499	-1.44	4.214



EPM of Plan assignments of 31 ATU members

Adm	Name	Pos	Downlink		Feeder-link	
			Min EPM	Max EPM	Min EPM	Max EPM
MOZ	Mozambique	-1	-19.262	-18.146	-1.771	0.437
MWI	Malawi	4.8	-18.494	-17.832	-31.228	-30.575
NIG	Nigeria	-19.2	-18.175	-14.429	-5.434	0.531
NMB	Namibia	-18.8	-16.354	-12.946	-3.12	1.837
RRW	Rwanda	11	-16.616	-14.919	0.168	4.308
SDN	Sudan	-7	-14.965	0.076	12.99	16.498
SEY	Seychelles	42.5	-17.153	-14.895	4.568	36.79
SOM	Somalia	37.8	-15.553	-12.283	-0.346	3.474
SWZ	Eswatini	4.8	-18.071	-16.247	-24.821	-21.199
TCD	Chad	17	-20.546	-16.316	-24.478	-23.151
TUN	Tunisia	-25.2	-18.556	2.26	-20.563	-5.613
TZA	Tanzania	11	-18.404	-17.478	-0.971	2.017
UGA	Uganda	17	-22.127	-21.427	-7.952	-7.2
ZMB	Zambia	-0.8	-21.207	-17.207	-23.836	-20.018
ZWE	Zimbabwe	-0.8	-19.16	-16.772	-23.249	-19.165

31 ATU members as seen from 10WITU



Annex

Provisional List of administrations that can apply the Special Procedure



The provisional list of administrations entitled to apply Resolution 559 (WRC 19) (1)

Adm	Name	Notice_ID	BSS Plan identification	Current Orbital Position
AFG	Afghanistan	100550001	AFG__100	50
AFS	South Africa (Republic of)	100550002	AFS02100	4.8
ALB	Albania (Republic of)	100550004	ALB29600	62
ARM	Armenia (Republic of)	100550007	ARM06400	22.8
ARS	Saudi Arabia (Kingdom of)	100550008	ARS__100	17
AUT	Austria	100550024	AUT01600	-18.8
AZE	Azerbaijan (Republic of)	100550025	AZE06400	23.2
BDI	Burundi (Republic of)	100550026	BDI27000	11
BEL	Belgium	100550027	BEL01800	38.2
BEN	Benin (Republic of)	100550028	BEN23300	-19.2
BIH	Bosnia and Herzegovina	100550032	BIH14800	56
BOT	Botswana (Republic of)	100550034	BOT29700	-0.8
CLN	Sri Lanka (Democratic Socialist Republic of)	100550049	CLN21900	50



The provisional list of administrations entitled to apply Resolution 559 (WRC 19) (2)

Adm	Name	Notice_ID	BSS Plan identification	Current Orbital Position
COD	Democratic Republic of the Congo	100550051	COD__100	-19.2
COG	Congo (Republic of the)	100550052	COG23500	-13.2
COM	Comoros (Union of the)	100550053	COM20700	29
CVA	Vatican City State	100550056 100550057	CVA08300 CVA08500	-1.2
DJI	Djibouti (Republic of)	100550063	DJI09900	16.8
DNK	Denmark	100550065	DNK090XR	-33.5
GAB	Gabonese Republic	100550085	GAB26000	-13.2
GEO	Georgia	100550086	GEO06400	23.2
GNE	Equatorial Guinea (Republic of)	100550090	GNE30300	-18.8
IRQ	Iraq (Republic of)	100550110	IRQ25600	50
KEN	Kenya (Republic of)	100550120	KEN24900	-0.8
LIE	Liechtenstein (Principality of)	100550132	LIE25300	-18.8



The provisional list of administrations entitled to apply Resolution 559 (WRC 19) (3)

Adm	Name	Notice_ID	BSS Plan identification	Current Orbital Position
LSO	Lesotho (Kingdom of)	100550133	LSO30500	4.8
MAU	Mauritius (Republic of)	100550137	MAU__100	29
MDA	Moldova (Republic of)	100550139	MDA06300	50
MDG	Madagascar (Republic of)	100550140	MDG23600	29
MKD	Republic of North Macedonia	100550142	MKD14800	22.8
MLD	Maldives (Republic of)	100550144	MLD30600	50
MLI	Mali (Republic of)	100550145	MLI__100	-19.2
MLT	Malta	100550146	MLT14700	22.8
MOZ	Mozambique (Republic of)	100550148	MOZ30700	-1
MWI	Malawi	100550151	MWI30800	4.8
NIG	Nigeria (Federal Republic of)	100550153	NIG11900	-19.2
NMB	Namibia (Republic of)	100550154	NMB02500	-18.8
NPL	Nepal (Federal Democratic Republic of)	100550157	NPL12200	50
POL	Poland (Republic of)	100550165	POL13200	50



The provisional list of administrations entitled to apply Resolution 559 (WRC 19) (4)

Adm	Name	Notice_ID	BSS Plan identification	Current Orbital Position
ROU	Romania	100550169	ROU13600	50
RRW	Rwanda (Republic of)	100550170	RRW31000	11
SDN	Sudan (Republic of the)	100550179	SDN__100	-7
SEY	Seychelles (Republic of)	100550181	SEY00000	42.5
SOM	Somalia (Federal Republic of)	100550186	SOM31200	37.8
SRB	Serbia (Republic of)	100550221	SRB14800	-7
SWZ	Eswatini (Kingdom of)	100550194	SWZ31300	4.8
TCD	Chad (Republic of)	100550197	TCD14300	17
TKM	Turkmenistan	100550201	TKM06800	50
TUN	Tunisia	100550204	TUN15000	-25.2
TUN	Tunisia	100550205	TUN27200	-25.2
TZA	Tanzania (United Republic of)	100550208	TZA22500	11
UGA	Uganda (Republic of)	100550210	UGA05100	17
YEM	Yemen (Republic of)	100550220	YEM__100	11
ZMB	Zambia (Republic of)	100550222	ZMB31400	-0.8
ZWE	Zimbabwe (Republic of)	100550223	ZWE13500	-0.8
SSD	South Sudan	-	-	-

Geographical distribution of Administrations listed above

(view from 10E)



Examination in date order

Higher priority than
your request

Assignments in the Plan

Assignments already in the List

Assignments submitted before 22.05.2020 but not yet enter in the List

Non-planned band assignments with date of protection before 22.05.2020

Your request

You have to coordinate with
administrations having higher priority
and identified as affected by the Bureau

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