

**UNITED STATES OF AMERICA**  
**PROPOSALS FOR THE WORK OF THE CONFERENCE**

**AGENDA ITEM 10**

10 to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, in accordance with Article 7 of the Convention,

**Background information**

Appendix **30** contains provisions for use of the broadcasting-satellite service (BSS) Plans and Regions 1 and 3 List, as well as for modifying the Plan (in the case of Region 2) or the List (in the case of Regions 1 and 3). It is a self-contained Appendix, including provisions for modifying the Plan or List (Article **4**), notifying Plan or List assignments and for coordinating other services in the frequency bands vis a vis the Plan and List (Articles **6** and **7**).

Appendix **30** also contains detailed criteria for sharing between the Plan/List and other services. Specifically, Annex 1 to Appendix **30** provides criteria for determining whether the service of an administration is affected by a proposed modification to the Region 2 Plan or by a proposed new or modified assignment in the Regions 1 and 3 List; Annex 4 to Appendix **30** provides criteria to determine the need to coordinate the fixed-satellite service (FSS) (or BSS not subject to a Plan) with the assignments of the Plans; and finally Annex 7 to Appendix **30** contains orbital position limitations on modifications to the BSS Plan or List.

The Ku band frequencies are not globally harmonized, so, for example, the range 11.7-12.2 GHz is BSS in Region 1 and FSS in Region 2, the range 12.5-12.7 GHz is FSS in Region 1 and BSS in Region 2, and the range 12.2-12.5 GHz is BSS in both Regions 1 and 2. The Annex 7 orbital position limitations on modifications to the BSS Plan or List were designed to facilitate BSS sharing with the FSS in the shared part of the orbital arc between Regions 1 and 2, and are specifically applicable to Region 2 BSS in 12.2-12.7 GHz and to Region 1 BSS in 11.7-12.2 GHz.

The Annex 7 orbital position limitations were maintained at WRC-2000 (the most recent BSS Planning conference, which focused on Regions 1 and 3) for the reason that during a Planning conference, many new BSS slots could be adopted at once, which could significantly limit the future access of FSS to the shared portion of the orbital arc. Some of the criteria of Annex 1 and Annex 4 to Appendix **30** were updated at WRC-2003. Since then there has been considerable experience in working with the Plans and the criteria of Annexes 1 and 4 to Appendix **30**. It is questionable at this point if the constraints of Annex 7 to Appendix **30** are still required, or if they could be removed or modified to provide additional access to this valuable spectrum resource.

**Proposals****MOD** USA/10/1RESOLUTION 808 (~~REV. WRC-1215~~)~~Preliminary~~ **Agenda for the 2018-2019 World Radiocommunication Conference**The World Radiocommunication Conference (Geneva, 20~~12~~15),

...

*resolves to give the view*

...

**ADD** USA/10/1

1 to review the orbital position limitations on modifications to the BSS Plans and List contained in Annex 7 to Appendix 30, conduct the necessary studies and consider possible modifications to Annex 7 to Appendix 30 in accordance with Resolution [USA/A10/ANNEX7-APPENDIX30] (WRC-15).

**Reasons:** Based on studies to date regarding the orbital separations allowed between BSS and FSS from the coordination triggers in Annexes 1 and 4 of Appendix 30, representative BSS and FSS systems serving different regions could successfully exist with orbital separations as small as 0.5 and 2 degrees, depending on the carrier parameters and geographic discrimination assumed.

**ADD** USA/10/1

## RESOLUTION [USA/A10/ANNEX7-APPENDIX30] (WRC-15)

**Review the orbital position limitations on modifications to the Broadcasting-Satellite Service (BSS) Plans and List contained in Annex 7 to Appendix 30, and consider possible modifications to Annex 7 to Appendix 30**

The World Radiocommunication Conference (Geneva, 2015),

*considering*

- a) that Appendix 30 contains provisions for use of the BSS Plans and Regions 1 and 3 List, as well as for modifying the Plan (in the case of Region 2) or the List (in the case of Regions 1 and 3);
- b) that Appendix 30 is a self-contained Appendix, including provisions for modifying the Plan or List (Article 4), notifying Plan or List assignments and for coordinating other services in the frequency bands vis a vis the Plan and List (Articles 6 and 7);
- c) that Appendix 30 also contains detailed criteria for sharing between the Plan/List and other services;

- d) that both BSS and the fixed-satellite service (FSS) may proceed at the same time to access the shared orbit resource outside of a planning conference;
- e) that special consideration may need to be given to operational systems implemented under the Annex 7 to Appendix 30 regime;
- f) that parity between the regions and services with BSS subject to orbital position limitations while FSS in the same frequency bands are not;

*recognizing*

- a) that Article 4 of Appendix 30 contains procedure for proposed modifications to the BSS Plan or List to coordinate with unplanned FSS or BSS;
- b) that Article 7 of Appendix 30 contains procedure for unplanned BSS or FSS networks to coordinate with BSS Plan or List assignments or previously filed modifications to the Plan or List;
- c) that Annex 1 to Appendix 30 contains the criteria to determine if a proposed modification to the BSS Plan or List needs to coordinate with unplanned FSS or BSS networks;
- d) that Annex 4 to Appendix 30 contains the criteria to determine if an unplanned FSS or BSS network needs to coordinate with the BSS Plan or List assignments or previously filed modifications to the Plan or List.
- e) that Annex 6 to Appendix 30 contains the summary of the assumptions used to develop the power flux density (pfd) levels contained in Annexes 1 and 4 to Appendix 30.
- f) that Annex 7 to Appendix 30 contains orbital position limitations on modifications to the BSS Plan or List; specifically applicable to Region 2 BSS in 12.2-12.7 GHz and to Region 1 BSS in 11.7-12.2 GHz. Annex 7 also contains associated e.i.r.p. limits for Region 1 BSS in a portion of the arc.

*recognizing further*

- a) that the limitations in Annex 7 to Appendix 30 were designed to facilitate sharing with the fixed-satellite service (FSS) in the shared part of the orbital arc between the Regions;
- b) that in the Ku band frequencies, the BSS allocations are not global, so, for example, 11.7-12.2 GHz is BSS in Region 1 and FSS in Region 2;
- c) that the orbital position limitations in Annex 7 to Appendix 30 were maintained at WRC-2000 during the last Regions 1 and 3 planning conference, as during a planning conference, many new BSS slots could be adopted at once which could significantly limit the future access of FSS to the shared portion of the orbital arc;

*resolves to invite ITU-R*

- 1 to review the orbital position limitations on modifications to the BSS Plans and List contained Annex 7 to Appendix 30, including conducting the necessary studies;

*resolves to invite WRC-15*

- 1 to consider appropriate modifications to Annex 7 to Appendix 30 based on proposals from administrations, and paying particular attention to the systems referred to in *considering e)*;

*invites administrations*

to participate actively in the review and studies by submitting contributions to ITU-R,

**Reasons:** To review the orbital position limitations on modifications to the BSS Plans and List contained Annex 7 to Appendix **30** with a view to modify Annex 7 to Appendix **30**.

**Attachment:** 1

## ATTACHMENT

**Proposal for an agenda item to review the orbital position limitations on modifications to the BSS Plans and List contained Annex 7 to Appendix 30, and consider possible modifications to Annex 7 to Appendix 30**

**Subject:** Proposed agenda item for WRC-19 to review the orbital position limitations on modifications to the BSS Plans and List contained Annex 7 to Appendix 30, and consider possible modifications to Annex 7 to Appendix 30.

**Origin:** United States of America

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**Proposal:** to review the orbital position limitations on modifications to the BSS Plans and List contained Annex 7 to Appendix 30, conduct the necessary studies, and consider possible modifications to Annex 7 to Appendix 30 in accordance with Resolution [USA/A10/ANNEX7-APPENDIX30] (WRC-15)

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**Background/reason:** Based on studies to date regarding the orbital separations allowed between BSS and FSS from the coordination triggers in Annexes 1 and 4 of Appendix 30, representative BSS and FSS systems serving different regions could successfully exist with orbital separations as small as 0.5 and 2 degrees, depending on the carrier parameters and geographic discrimination assumed. These small orbital separations suggest that additional measures, such as the orbital position limitations in Annex 7, could no longer be needed outside of a planning conference.

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**Radiocommunication services concerned:** Fixed Satellite Service, Broadcast Satellite Service

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**Indication of possible difficulties:** None foreseen

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**Previous/ongoing studies on the issue:** TBD

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<b>Studies to be carried out by:</b> WP 4A	<b>with the participation of:</b>
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**ITU-R Study Groups concerned:** Study Group 4

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**ITU resource implications, including financial implications (refer to CV126):** Minimal

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**Common regional proposal:** Yes/No

**Multicountry proposal:** Yes/No

**Number of countries:**

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**Remarks**

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