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| U.S. Radiocommunication Sector  Fact Sheet | |
| **Working Party:** ITU-R WP 7D | **Document No:** 24USWP7D\_05\_NC |
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| **Document Title:** Draft Liaison Statement to Working Parties 4A and 4C (Copied to 1B, 3J, 3M, 5A, 5B, and 5D for information): Agenda Item 1.16 | |
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| **Purpose/Objective:** To liaise with ITU-R Working Parties 4A and 4C, regarding technical and operational characteristics relevant to agenda item 1.16 | |
| **Abstract:**  The outcome of CPM 27-1 indicates Working Parties 4A and 4C are among the contributing groups for agenda item 1.16. These groups are responsible for fixed-satellite service (FSS), mobile-satellite service (MSS), and other system characteristics, and this liaison statement is intended to request relevant system characteristics. | |
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| **Radiocommunication Study Groups** |  |
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| DRAFT Liaison STATEMENT to Working Parties 4A and 4C (Copied to 1B, 3J, 3M, 5A, 5B, and 5D for information): Agenda Item 1.16 | |
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**Introduction**

CPM 27-1 identified Working Parties (WP) 4A and 4C as among the contributing groups for WRC-27 agenda item 1.16. The attached draft liaison statement is proposed to request the technical and operational characteristics for the fixed-satellite service (FSS) and mobile-satellite service (MSS) regarding the frequency bands and other inquiries and studies detailed in Resolution **COM6/11 (WRC-23)**. Guidance is also requested on modelling of non-geostationary orbit (non-GSO) systems and considerations related to modelling of simultaneous operations of multiple non-GSO systems.

**Attachment**

ATTACHMENT

Working Party 7D

LIAISON STATEMENT TO WORKING PARTIES 4A AND 4C (COPIED TO 1B, 3J, 3M, 5A, 5B, AND 5D FOR INFORMATION)

WRC-27 Agenda Item 1.16

Working Party (WP) 7D was identified as the responsible group for WRC-27 agenda item 1.16: “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)**”.

Resolution **681 (WRC-23)** calls for studies of impacts to radio astronomy service (RAS) systems as follows:

1 studies on how the interference from unwanted emissions from a single non-geostationary orbit (non-GSO) satellite system operating in the adjacent and nearby frequency bands in Table 1 affects the operation of RAS stations in frequency bands allocated to the RAS on a primary basis in Table 1;

2 studies on how the aggregate interference from unwanted emissions from multiple non-GSO satellite systems operating in the adjacent and nearby frequency bands in Table 1 affect the operation of RAS stations in frequency bands allocated to the RAS on a primary basis in Table 1;

where Table 1 from Resolution **681 (WRC-23)** detailing relevant RAS frequency bands and adjacent and nearby frequency bands is the following:

| Radio astronomy frequency band | Active space service operating in adjacent or nearby frequency band | Active space service  (space-to-Earth) | Scope |
| --- | --- | --- | --- |
| 10.6-10.7 GHz | 10.7-10.95 GHz | FSS | *Resolves* *etc.* 1 and 2 |
| 42.5-43.5 GHz | 42-42.5 GHz | FSS | *Resolves* *etc.* 2 |
| 76-77.5 GHz | 74-76 GHz | FSS, MSS | *Resolves* *etc.* 2 |
| 94.1-95 GHz | 95-100 GHz | RNSS, MSS | *Resolves* *etc.* 2 |
| 100-102 GHz | 95-100 GHz | RNSS, MSS | *Resolves* *etc.* 1 and 2 |
| 114.25-116 GHz | 116-119.98 GHz | ISS | *Resolves* *etc.* 1 and 2 |
| 130-134 GHz | 123-130 GHz | FSS, MSS, RNSS | *Resolves* *etc.* 2 |

As the responsible group for WRC-27 Agenda Item 1.16, WP 7D invites WP 4A to provide relevant technical and operational characteristics of services operating in the frequency ranges 10.7-10.95 GHz, 42-42.5 GHz, 74-76 GHz, and 123-130 GHz, as appropriate. Additionally, WP 7D would like to seek guidance from WP 4A about modelling of non-GSO fixed-satellite service (FSS) systems, in particular methods for modelling simultaneous operations of multiple non-GSO systems.

WP 7D invites WP 4C to provide relevant technical and operational characteristics of services operating in the frequency ranges 74-76 GHz, 95-100 GHz, and 123-130 GHz, as appropriate. Additionally, WP 7D would like to seek guidance from WP 4C about modelling of non-GSO mobile-satellite service (MSS) systems, in particular methods for modelling simultaneous operations of multiple non-GSO systems.

WP 7D also notes that Resolution **681 (WRC-23)** calls for studies of methods to calculate separation distances between gateways of non-GSO systems and RAS systems operating in the facilities defined in *considering k)* of Resolution **681 (WRC-23)** where such operation is adjacent to or nearby RAS allocations, and invites WP 4A and WP 4C to provide relevant technical and operational system characteristics and considerations toward development of these methods.

Finally, as Resolution **681 (WRC-23)** calls for the development of coexistence measures between non-GSO systems and RAS systems operating in the facilities defined in *considering k)* of Resolution **681 (WRC-23)**, WP 7D invites WP 4A and WP 4C to participate actively in the evaluation and study of such measures.

**Deadline**: 21 December 2024

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| **Status:** Working Parties 4A and 4C, for action  Working Parties 1B, 3J, 3M, 5A, 5B, and 5D, for information |  |
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