**Before the**

**FEDERAL COMMUNICATIONS COMMISSION**

**Washington, DC 20554**

|  |  |
| --- | --- |
| In the Matter of | ) |
|  | ) |
| International Bureau Seeks Comment on | ) IB Docket No. 16-185 |
| Recommendations Approved by World | ) |
| Radiocommunication Conference Advisory | ) |
| Committee | ) |
|  |  |

**COMMENTS OF OMNISPACE LLC**

Omnispace LLC (“Omnispace”) respectfully submits these comments in response to the Public Notice (the “PN”) issued by the International Bureau on October 3, 2018, in the matter of the above proceeding.[[1]](#footnote-1) The PN seeks comment on the draft recommendations provided by the World Radiocommunication Conference Advisory Committee (“WAC”). These issues will be considered by the International Telecommunication Union’s (“ITU”) 2019 World Radiocommunication Conference (“WRC-19”).

Omnispace operates a global satellite system in non-geostationary orbit (non-GSO) that uses the S-band for user links and the C-band for feeder links and telemetry, tracking, and telecommand. Omnispace is a member of the Federal Communication Commission’s WRC-19 Advisory Committee.

Omnispace comments are limited to draft proposals that have been provided to the FCC by the National Telecommunications and Information Administration (NTIA) as contained in Attachment B of the Public Notice, specifically those that address WRC-19 Agenda Item 7 concerning possible changes to the advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks.

Agenda Item 7 Issue A

With respect to Agenda Item 7 Issue Aconcerning the applicability of bringing into use of frequency assignments to all non-GSO satellite systems and consideration of a milestone-based approach for the deployment of non-GSO satellite systems in specific bands and services, Omnispace supports NTIA’s proposal that bringing into use of frequency assignments to a non-GSO system should continue to be achieved by the deployment of one satellite into one of the notified orbital planes of the non-GSO system, irrespective of the notified number of orbital planes and satellites per orbital plane in the system, on or prior to the deadline for bringing into use.

NTIA proposes that a fixed period of one day for continuous deployment is long enough for a notifying administration to determine that a non-GSO space station with the capability of transmitting or receiving particular frequency assignments has been deployed in a notified orbital plane. We are concerned that a one-day period is insufficient to demonstrate bringing into use and would not be a deterrent to the resurgence of the so-called “paper satellite networks” that Agenda Item 7 Issue A seeks to address. For this reason, we believe the continuous period should be at least 30 but not more than 90 days, noting a 90-day period currently applies to GSO networks based upon the ITU’s Radio Regulations and to non-GSO systems in the fixed-satellite service and mobile-satellite service based upon the Rules of Procedure in force.

The proper functioning of coordination, notification, and due diligence mechanisms necessitate the type of cautious and practical milestone approach found in the NTIA proposal. Omnispace agrees with the NTIA proposal not to specify orbital tolerances for individual parameters and shares the view that this subject requires further study. We support limiting the application of the milestone approach to the congested frequency bands and services that have been agreed during the ITU study process as proposed by NTIA.

Agenda Item 7 Issue I

Agenda Item 7 Issue I concerns adding data elements to Appendix 4 of the Radio Regulations to clarify whether a non-GSO system composed of multiple orbital planes is a single system where all frequency assignments will operate simultaneously or multiple configurations that are mutually exclusive.

ITU Council 2018 modified Decision 482, *Implementation of Cost Recovery for Satellite Network Filings*, to charge for each mutually exclusive configuration in a non-GSO filing. The revisions to Appendix 4 should be aligned with and facilitate the application of Decision 482 (Council 2018) by identifying the number of sub-sets of orbital characteristics that are mutually exclusive and their orbital plane identification numbers. Working Party 4C provided corrections to the text in the Draft Conference Preparatory Meeting Report that should also be implemented in the Issue I proposal. Additionally, the text can be simplified from two to three options because there is no regulatory difference between a “single configuration” and “multiple configurations that will operate simultaneously.” In both cases, all the satellites in the filing will be taken together.

In the attached Annex, Omnispace proposes highlighted modifications to the NTIA proposal for Agenda Item 7 Issue I to address the issues identified above.

We appreciate the opportunity to comment on these important proposals.

Respectfully submitted,

*/s/*

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**Annex**

**United States**

PROPOSALS FOR THE WORK OF THE CONFERENCE

# Agenda item 7

Issue I

**Agenda Item 7**: to consider possible changes, and other options, in response to Resolution **86** **(Rev. Marrakesh, 2002)** of the Plenipotentiary Conference, an 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 rational, efficient and economical use of radio frequencies and any associated orbits, including the geostationary‑satellite orbit;

**Issue I** - Additional RR Appendix **4** data items to be provided for non-geostationary satellite systems with multiple orbital planes

**BACKGROUND:**

In 2015, World Radiocommunication Conference (WRC-15) endorsed the recommendation of the Director of the Radiocommunication Bureau to allow two types of submissions for the Coordination Request (CR/C) for frequency assignments to non-geostationary (NGSO) satellite systems:

1 CR/C for frequency assignments to a NGSO satellite system with one (or more than one) set(s) of orbital characteristics with an indication that all frequency assignments of the system would be operated simultaneously;

2 CR/C for frequency assignments to a NGSO satellite system with different sets of orbital characteristics with an indication that the different sets of orbital planes would be mutually exclusive, i.e. satellites on these sets of orbits would not be operated simultaneously and only one of these sets of orbital planes would be implemented.

However, no modification was made to Appendix 4 of the Radio Regulations to ensure the proper identification of the type of CR/C, leading the Bureau to systematically seek clarification from notifying administrations in case of a submission of a CR/C for frequency assignments to NGSO satellite system composed of multiple orbital planes. Subsequently, the Radio Regulations Board adopted a Rule of Procedures for the receivability of NGSO systems which implements the two types of submissions as endorsed by WRC-15.

Although WRC-15 did not specifically address the case of frequency assignments to NGSO satellite systems with multiple planes in bands not subject to coordination under Section II of RR Article **9**, it appears important to consider the same level of flexibility for submission of Advance Publication Information (API).

To remedy the situation and to improve the ability of affected administrations to understand the nature of the NGSO systems under consideration, it is proposed to add two new Appendix 4 data elements to determine the relationship between the various orbital planes listed in the API or CR/C, as appropriate. The attached proposal draws upon the only method in the draft CPM Report on WRC-19 agenda item 7, issue I, taking into account some minor corrections and the need to align the text with elements of Decision 482 (Modified 2018) that concern coordination requests of a non-geostationary satellite network where the notifying administration has indicated that the different sub-sets of orbital characteristics would be mutually exclusive.

MOD USA/7(I)/1

APPENDIX 4 (REV.WRC‑19)

Consolidated list and tables of characteristics for use in the  
application of the procedures of Chapter III

**Reasons:** Add two new Appendix 4 data elements to determine the relationship between the various orbital planes listed in the API or CR/C, as appropriate

MOD USA/7(I)/2

ANNEX 2

Characteristics of satellite networks, earth stations  
or radio astronomy stations2    (Rev.WRC‑19)

**Footnotes to Tables A, B, C and D**

Reasons: Add two new Appendix 4 data elements to determine the relationship between the various orbital planes listed in the API or CR/C, as appropriate

MOD USA/7(I)/3

**TABLE A**

GENERAL CHARACTERISTICS OF THE SATELLITE NETWORK,   
EARTH STATION OR RADIO ASTRONOMY STATION     (Rev.WRC‑19)

| **Items in Appendix** | ***A \_ GENERAL CHARACTERISTICS OF THE SATELLITE NETWORK,  EARTH STATION OR RADIO ASTRONOMY STATION*** | **Advance publication of a geostationary- satellite network** | **Advance publication of a non-geostationary-satellite network subject to coordination under Section II  of Article 9** | **Advance publication of a non-geostationary-satellite network not subject to coordination under Section II  of Article 9** | **Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)** | **Notification or coordination of a non-geostationary-satellite network** | **Notification or coordination of an earth station (including notification under  Appendices 30A or 30B)** | **Notice for a satellite network in the broadcasting-satellite service under  Appendix 30 (Articles 4 and 5)** | **Notice for a satellite network  (feeder-link) under Appendix 30A  (Articles 4 and 5)** | **Notice for a satellite network in the fixed- satellite service under Appendix 30B  (Articles 6 and 8)** | **Items in Appendix** | **Radio astronomy** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A.4.b | **For space station(s) onboard non-geostationary satellite(s):** |  |  |  |  |  |  |  |  |  | A.4.b |  |
| A.4.b.1 | the number of orbital planes |  |  | **X** |  | **X** |  |  |  |  | A.4.b.1 |  |
| A.4.b.1.a | Indicator of whether all the orbital planes identified under A.4.b.1 describe a) a single configuration where all frequency assignments will operate simultaneously, or b) multiple configurations that are mutually exclusive.  Required only for the advance publication information and coordination request of non-GSO satellite systems. |  |  | **X** |  | **X** |  |  |  |  | A.4.b.1.a |  |
| A.4.b.4.a.1 | In case the orbital planes identified under A.4.b.1 describe multiple mutually exclusive configurations, identification of the number of sub-sets of orbital characteristics that are mutually exclusive and the orbital plane id numbers that are associated with each of the mutually exclusive configurations.  Required only for the advance publication information and coordination request for non-GSO satellite systems. |  |  | **+** |  | **+** |  |  |  |  | A.4.b.4.a.1 |  |
| A.4.b.2 | the reference body code |  | **X** | **X** |  | **X** |  |  |  |  | A.4.b.2 |  |
| A.4.b.3 | **For space stations of a non-geostationary fixed-satellite service system operating in the band 3 400‑4 200 MHz:** |  |  |  |  |  |  |  |  |  | A.4.b.3 |  |

**Reasons:** Additional Appendix 4 data elements required to understand the relationship between the various orbital planes

1. *See International Bureau Seeks Comment on Recommendations Approved by World Radiocommunication Conference Advisory Committee*, Public Notice, IB Docket No. 16-185, DA 18-1017 (Oct. 3, 2018) (“PN”). [↑](#footnote-ref-1)