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| A close up of a sign  Description automatically generated | **World Radiocommunication Conference (WRC-23)Dubai, 20 November - 15 December 2023** |  |
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| PLENARY MEETING | **Addendum 25 toDocument 99-E** |
|  | **27 October 2023** |
|  | **Original: English** |
|  |
| Japan |
| PROPOSAL FOR THE WORK OF THE CONFERENCE |
|  |
| Agenda item 9.2 |

9 to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the ITU Convention;

9.2 on any difficulties or inconsistencies encountered in the application of the Radio Regulations;[[1]](#footnote-1)1 and

Introduction

WRC-19 introduced some new parameters in Appendix **4** of the Radio Regulations (RR). One of such parameters is the indicator of “constellation” (A.4.b.1.a in RR Appendix **4**). In the examination process on this parameter by BR, some confusions were caused. For the part of “Note – Non-geostationary-satellite systems in frequency bands subject to the provisions of RR Nos. **9.12**, **9.12A**, **22.5C**, **22.5D**, **22.5F** or **22.5L** are always considered as “constellation”, some administrations considered that the ITU filing contains only one space station is not considered as “constellation” because the ITU filing with only one space station is treated as “network” in accordance with RR No. **1.112** “a satellite system or a part of a satellite system, consisting of only one satellite and the cooperating earth stations”. However, while BR did not process one ITU filing with only one space station as “constellation”, BR processed the other ITU filing with only one space station as “constellation” with the reason of RR No. **1.111** “a space system using one or more artificial earth satellite”.

Since the above difficulties on different understanding of this categorization were encountered after the introduction of the indicator of “constellation” (A.4.b.1.a in RR Appendix **4**), it is preferrable to provide some clarifications on the indicator of “constellation” (A.4.b.1.a in RR Appendix **4**).

Additionally, in whatever the case is, it does not make sense to consider a single satellite as “constellation”. Thus, the indicator of “constellation” (A.4.b.1.a in RR Appendix **4**) should be clarified to avoid the categorization of an ITU filing with only one space station as “constellation”.

Based on the above, this Administration proposes the modification of the definitions in the relevant parameters in RR Appendix **4**, in order to solve the inconsistency encountered in the application of the current provisions.

APPENDIX 4 (REV.WRC‑19)

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

ANNEX 2

Characteristics of satellite networks, earth stations
or radio astronomy stations[[2]](#footnote-2)2    (Rev.WRC‑12)

Footnotes to Tables A, B, C and D

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**TABLE A**

GENERAL CHARACTERISTICS OF THE SATELLITE NETWORK OR SYSTEM,
EARTH STATION OR RADIO ASTRONOMY STATION     (Rev.WRC‑23)

|  |  |  |  |  |  |  |  |  |  |  |  |  |
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| **Items in Appendix** | ***A \_ GENERAL CHARACTERISTICS OF THE SATELLITE NETWORK OR SYSTEM, EARTH STATION OR RADIO ASTRONOMY STATION*** | **Advance publication of a geostationary-satellite network** | **Advance publication of a non-geostationary-satellite network or system subject to coordination under Section II of Article 9** | **Advance publication of a non-geostationary-satellite network or system 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 or system** | **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 the non-geostationary-satellite system represents a “constellation”, where the term “constellation” describes a satellite system, for which the relative distribution of the orbital planes and satellites is defined*Note* – Non-geostationary-satellite systems in frequency bands subject to the provisions of Nos. **9.12**, **9.12A**, **22.5C**, **22.5D**, **22.5F** or **22.5L** are always considered as “constellations”, except for the case of consisting of only one space station |  |  | **X** |  | **X** |  |  |  |  | A.4.b.1.a |  |
| A.4.b.1.b | indicator of whether all the orbital planes identified under A.4.b.1 describe a) a single configuration where all frequency assignments to the satellite system will be in use or b) multiple configurations that are mutually exclusive where a sub-set of the frequency assignments to the satellite system will be in use on one of the sub-sets of orbital parameters to be determined at the notification and recording stage of the satellite systemRequired only for the:1) advance publication information for a non-geostationary-satellite system representing a constellation (A.4.b.1.a), and2) coordination request for non-geostationary-satellite systems |  |  | **+** |  | **+** |  |  |  |  | A.4.b.1.b |  |
| A.4.b.1.c | if 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 exclusiveRequired only for the:1) advance publication information for a non-geostationary-satellite system representing a constellation (A.4.b.1.a), and2) coordination request for non-geostationary-satellite systems |  |  | **+** |  | **+** |  |  |  |  | A.4.b.1.c |  |
| A.4.b.1.d | if the orbital planes identified under A.4.b.1.b describe multiple mutually exclusive configurations, identification of the orbital planes’ id numbers that are associated with each of the mutually exclusive configurationsRequired only for the:1) advance publication information for a non-geostationary-satellite system representing a constellation (A.4.b.1.a), and 2) coordination request for non-geostationary-satellite systems |  |  | **+** |  | **+** |  |  |  |  | A.4.b.1.d |  |
| 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 frequency band 3 400‑4 200 MHz:** |  |  |  |  |  |  |  |  |  | A.4.b.3 |  |
| A.4.b.3.a | the maximum number of space stations (*NN*) in a non-geostationary-satellite system simultaneously transmitting on a co-frequency basis in the fixed-satellite service in the Northern Hemisphere |  |  | **X** |  | **X** |  |  |  |  | A.4.b.3.a |  |
| A.4.b.3.b | the maximum number of space stations (*NS*) in a non-geostationary-satellite system simultaneously transmitting on a co-frequency basis in the fixed-satellite service in the Southern Hemisphere |  |  | **X** |  | **X** |  |  |  |  | A.4.b.3.b |  |
| A.4.b.4 | **For each orbital plane, where the Earth is the reference body:** |  |  |  |  |  |  |  |  |  | A.4.b.4 |  |
| A.4.b.4.a | the angle of inclination (*ij*) of the orbital plane with respect to the Earth’s equatorial plane (0° ≤ *ij* < 180°) |  |  | **X** |  | **X** |  |  |  |  | A.4.b.4.a |  |
| … |  |  |  |  |  |  |  |  |  |  |  |  |

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1. 1 This agenda sub-item is 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. Administrations are invited to inform the Director of the Radiocommunication Bureau of any difficulties or inconsistencies encountered in the Radio Regulations. [↑](#footnote-ref-1)
2. 2 The Radiocommunication Bureau shall develop and keep up-to-date forms of notice to meet fully the statutory provisions of this Appendix and related decisions of future conferences. Additional information on the items listed in this Annex together with an explanation of the symbols is to be found in the Preface to the BR IFIC (Space Services).    (WRC‑12) [↑](#footnote-ref-2)