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|  | ASIA-PACIFIC TELECOMMUNITY | **Document No:** |
| **The 4th Meeting of the APT Conference Preparatory****Group for WRC-23 (APG23-4)** | **APG23-4/OUT-35** |
| 15 – 20 August 2022, Bangkok, Thailand | 20 August 2022 |

Working Party 5

**PRELIMINARY VIEWs on WRC-23 agenda item 2**

**Agenda item 2**

*to examine the revised ITU-R Recommendations incorporated by reference in the Radio*

*Regulations communicated by the Radiocommunication Assembly, in accordance with the further resolves of Resolution* ***27 (Rev.WRC-19)****, and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with the principles contained in the resolves of that Resolution;*

# Background

This is a standing agenda item at every WRC to examine the revised ITU-R Recommendationsincorporated by reference in the Radio Regulations (RR) in order to determine their suitability for incorporation by reference in the RR. As such ITU-R Recommendations (IBR Recommendations) may be revised by ITU-R Study Groups, it is necessary for the next WRC to decide whether or not to update the corresponding references in the RR in accordance with Resolution **27 (Rev.WRC-19)**.

# Documents

## Input Documents:

APG23-4/INP-12(J), 18(AUS), 28(IRN), 44(CHN), 65(IND)

## Information Documents:

APG23-4/INF-02(ATU), 21(ASMG), 35(Rev. 1) (BR), 42(DG Chair), 44(RCC), 48(CEPT)

# Summary of Discussions

## Summary of APT Members’ views

### Japan (APG23-4/INP-12)

In order to facilitate the consideration of WRC-23 agenda item 2 by the future APG23 meetings, Japan has updated “The ITU-R Recommendations incorporated by reference in the Radio Regulations (IBR Recommendations)” contained in APG23-3/OUT-35 Attachment 1 with the study progress as of April 2022.

The updated list is for early information purposes only. APT Members are encouraged to participate and monitor the progress of the ITU-R studies in the relevant Working Parties, which may propose further revisions of IBR Recommendations.

### Australia (APG23-4/INP-18)

Australia supports the examination and review of ITU-R Recommendations incorporated by reference into the Radio Regulations and, where appropriate, the updating of these references.

### Iran (Islamic Republic of) (APG23-4/INP-28)

The Administration of the I.R. Iran proposes that the following view be adopted as APT Preliminary Views at this stage:

APT Members support the examination and review of ITU-R Recommendations incorporated by reference in the Radio Regulations and, where appropriate, the updating of these references in accordance with Resolution **27 (Rev.WRC-19).**

APT Members are encouraged to participate and monitor the progress of the ITU-R studies in the relevant Working Parties, which may propose and develop revisions of incorporated by reference (IBR) Recommendations, with a view to develop the APT positions on this agenda item towards the WRC-23.

### China (APG23-4/INP-44)

China supports the examination and review of ITU-R Recommendations incorporated by reference into the Radio Regulations and, where appropriate, the updating of these references.

In APG23-3, APG23-3/OUT-35 has been agreed by the meeting which provided a list of IBR Recommendations, along with information regarding the responsible ITU-R Working Parties and study progress.

Based on the progress of the ITU-R studies in the relevant Working Parties, this document updates the study progress of the IBR Recommendations as of June 2022. The Attachment 1 is for APG23-4 to examine and review IBR Recommendations and consider whether it is appropriate to update the references in the Radio Regulations.

### India (APG23-4/INP-65)

India supports the examination and review of ITU-R Recommendations incorporated by reference into the Radio Regulations, and where appropriate, updating of these references.

# APT Preliminary View

APT Members support the examination and review of ITU-R Recommendations incorporated by reference in the Radio Regulations and, where appropriate, the updating of these references in accordance with Resolution **27 (Rev.WRC-19).**

APT Members are encouraged to participate and monitor the progress of the ITU-R studies in the relevant Working Parties, which may propose and develop revisions of ITU-R Recommendations incorporated by reference (IBR), with a view to develop APT positions on this agenda item towards the WRC-23.

# Issues for Consideration at the Next APG Meeting

APG23-5 will examine and review the list of IBR Recommendations in Attachment 1, based on the progress of the ITU-R studies in the relevant Working Parties.

For the IBR Recommendations for which a new version is approved, when it is considered appropriate to update the reference in the Radio Regulations, APT Members are encouraged to fill out the proposed action column in Attachment 1 and propose a specific regulatory text reflecting the update of the reference for consideration by future APG meetings.

# Views from Other Organisations

## Regional Groups

### ATU (APG23-4/INF-02)

APM23-2 agreed to support the work of the radiocommunication study groups and the Radiocommunication Assembly on revision of those Recommendations to which mandatory references are made in the Radio Regulations.

### ASMG (APG23-4/INF-21)

ASMG administrations support the principle of Resolution No. **27 (Rev.WRC-19**) to review and examine Recommendations incorporated by reference in the Radio Regulations with a view to update them as appropriate.

Invite ASMG members to actively participate in ITU-R related working groups on revision of these recommendations.

### CEPT(APG23-4/INF-48)

CEPT supports the revision of ITU-R Recommendations: to be developed.

CEPT resumes examining the compliance with the principles of Annex 1 to Resolution **27 (Rev. WRC-19)** of the references to ITU-R Recommendations in the Radio Regulations.

CEPT supports update of the RR Volume 4 cross-reference list.

### RCC (APG23-4/INF-44)

The RCC Administrations support the principles set out in Resolution **27 (Rev.WRC‑19)** and supports the revision of the ITU-R Recommendations incorporated by reference in the Radio Regulations with a view to updating them as necessary.

## International Organizations

### IMO[[1]](#footnote-1)

1. IMO has studied the Recommendations of relevance and commented on the following IBRs.
* Required/needed: M.476-5, M.489-2, M.492-6, M.541-10, M.585-8, M.625-4, M.690-3, M.1171-0, M.1172-0, M.1173-1, M.1174-4
* Used: M.1084-5, M.633-4,
* Not required but may be required: M.1638-1

2 Incorporation by reference is of importance to IMO because of the close relationship between many of the ITU-R Recommendations related to GMDSS equipment and its operation, to IMO performance standards.

3 IMO requests early indication of any changes proposed by ITU to the mechanism of incorporation by reference and to the list of incorporated Recommendations.

**Attachment 1**

**Attachment 1**

**The ITU‑R Recommendations incorporated by reference in the Radio Regulations**

(\* WD: Working document, PDR: Preliminary draft revision)

| **REC.** | **Title** | **RR Provision** | **Progress of future revision\*** | **ITU-R WP** | **APT Proposed action** |
| --- | --- | --- | --- | --- | --- |
| **TF.460-6** | Standard-frequency and time-signal emissions | No. 1.14 (via Resolution 655 (WRC-15)) |   | WP 7A |  |
| **M.476-5** | Direct-printing telegraph equipment in the maritime mobile service | Nos. 19.83, 19.96A, 51.41 |   | WP 5B |  |
| **M.489-2** | Technical characteristics of VHF radiotelephone equipment operating in the maritime mobile service in channels spaced by 25 kHz | Nos. 51.77, 52.231, Appendix 18 (General *notes* *e)*) |   | WP 5B |  |
| **M.492-6** | Operational procedures for the use of direct-printing telegraph equipment in the maritime mobile service | No. 56.2 |   | WP 5B |  |
| **P.525-4** | Calculation of free-space attenuation | No. 5.444B (via Resolution 748 (Rev.WRC-19)) |  Ann. 8 to Doc. 3J/225(June 2022)(WD) | WP 3J |  |
| **P.526-15** | Propagation by diffraction | No. 5.444B (via Resolution 748 (Rev.WRC-19)) |  Ann.28 to Doc. 3J/225(June 2022)(PDR) | WP 3J |  |
| **M.541-10** | Operational procedures for the use of digital selective-calling equipment in the maritime mobile service | Nos. 51.35, 52.112, 52.149, 52.153, 54.2 | Ann. 16 to Doc. 5B/649(August 2022)(WD) | WP 5B |  |
| **M.585-8  (Annex 1)** | Assignment and use of identities in the maritime mobile service  | Nos. 19.99, 19.102, 19.111 | M.585-9 was approved in May 2022 (CACE/1025) | WP 5B |  |
| **M.625-4** | Direct-printing telegraph equipment employing automatic identification in the maritime mobile service | Nos. 19.83, 51.41 |   | WP 5B |  |
| **M.633-4** | Transmission characteristics of a satellite emergency position-indicating radio beacon (satellite EPIRB) system operating through a satellite system in the 406 MHz band | No. 34.1 | Ann.3 to Doc.4C/245(Oct. 2021)(WD) | WP 4C |  |
| **S.672-4** | Satellite antenna radiation pattern for use as a design objective in the fixed-satellite service employing geostationary satellites | TABLE 22-2 (and No. 22.5D.3), TABLE 22-3 (and No. 22.5F.3) |   | WP 4A |  |
| **M.690-3** | Technical characteristics of emergency position-indicating radio beacons operating on the carrier frequencies of 121.5 MHz and 243 MHz | Appendix 15 (Table 15-2) |   | WP 5B |  |
| **RA.769-2** | Protection criteria used for radio astronomical measurements | No. 5.372 |   | WP 7D |  |
| **P.838-3**  | Specific attenuation model for rain for use in prediction methods | Appendix 30A (Annex 3 § 2.2 Step 6) | Ann.16 to Doc. 3J/225(June 2022)(WD) | WP 3J |  |
| **M.1084-5** | Interim solutions for improved efficiency in the use of the band 156-174 MHz by stations in the maritime mobile service | Appendix 18 (NOTE B) (prior to the table) |   | WP 5B |  |
| **SM.1138-3** | Determination of necessary bandwidths including examples for their calculation and associated examples for the designation of emissions | Appendix 1 (§ 1 and § 2) |   | WP 1A |  |
| **SA.1154-0** | Provisions to protect the space research (SR), space operations (SO) and Earth-exploration satellite services (EES) and to facilitate sharing with the mobile service in the 2 025-2 110 MHz and 2 200-2 290 MHz bands | No. 5.391 | Ann.4 to Doc. 7B/198(May 2022)(PDR) | WP 7B |  |
| **M.1171-0** | Radiotelephony procedures in the maritime mobile service | Nos. 52.192, 52.195, 52.213, 52.224, 52.234, 52.240, 57.1 | Ann. 25 to Doc.5B/481 (Dec 2021)(WD) | WP 5B |  |
| **M.1172-0** | Miscellaneous abbreviations and signals to be used for radiocommunications in the maritime mobile service | No. 19.48 |   | WP 5B |  |
| **M.1173-1** | Technical characteristics of single-sideband transmitters used in the maritime mobile service for radiotelephony in the bands between 1 606.5 kHz (1 605 kHz Region 2) and 4 000 kHz and between 4 000 kHz and 27 500 kHz | Nos. 52.181, 52.229, Appendix 17 (Part B, Section I § 2 and § 6) |   | WP 5B |  |
| **M.1174-4** | Technical characteristics of equipment used for on-board vessel communications in the bands between 450 and 470 MHz | Nos. 5.287, 5.288 |   | WP 5B |  |
| **M.1187-1**  | A method for the calculation of the potentially affected region for a mobile-satellite service network in the 1‑3 GHz range using circular orbits | Appendix 4 (Annex 2 item C.11.b) |   | WP 4C |  |
| **S.1256-0** | Methodology for determining the maximum aggregate power flux-density at the geostationary-satellite orbit in the band 6 700-7 075 MHz from feeder links of non-geostationary satellite systems in the mobile-satellite service in the space‑to‑Earth direction | No. 22.5A |   | WP 4A |  |
| **RS.1260-2** | Feasibility of sharing between active spaceborne sensors and other services in the range 420-470 MHz | No. 5.279A |   | WP 7C |  |
| **BO.1293-2** | Protection masks and associated calculation methods for interference into broadcast-satellite systems involving digital emissions | Appendix 30A (Annex 3 § 3.3), Appendix 30 (Annex 5 § 3.4) |   | WP 4A |  |
| **S.1340-0** | Sharing between feeder links for the mobile-satellite service and the aeronautical radionavigation service in the Earth-to-space direction in the band 15.4-15.7 GHz | No. 5.511C |   | WP 4A |  |
| **S.1428-1** | Reference FSS earth-station radiation patterns for use in interference assessment involving non-GSO satellites in frequency bands between 10.7 GHz and 30 GHz | TABLE 22-1A,TABLE 22-1B,TABLE 22-1C (and No. 22.5C.6) | Ann.5 to Doc.4A/392(July 2021)(WD) | WP 4A |  |
| **BO.1443-3** | Reference BSS earth station antenna patterns for use in interference assessment involving non-GSO satellites in frequency bands covered by RR Appendix 30 | TABLE 22-1D (and No. 22.5C.11) | Ann.6 to Doc.4A/392(July 2021)(WD) | WP 4A |  |
| **RA.1513-2** | Levels of data loss to radio astronomy observations and percentage-of-time criteria resulting from degradation by interference for frequency bands allocated to the radio astronomy service on a primary basis | No. 5.372 |   | WP 7D |  |
| **M.1583-1** | Interference calculations between non-geostationary mobile-satellite service or radionavigation-satellite service systems and radio astronomy telescope sites  | No. 5.372, No. 5.443B (via Resolution 741 (Rev.WRC-15)), Appendix 4 Annex 2 (item A.17.b.3) (via Resolution 741 (Rev.WRC-15)) |   | WP 4C |  |
| **S.1586-1** | Calculation of unwanted emission levels produced by a non‑geostationary fixed-satellite service system at radio astronomy sites | No. 5.551H |   | WP 4A |  |
| **F.1613-0** | Operational and deployment requirements for fixed wireless access systems in the fixed service in Region 3 to ensure the protection of systems in the Earth exploration-satellite service (active) and the space research service (active) in the band 5 250-5 350 MHz | No. 5.447E |   | WP 5A |  |
| **RA.1631-0** | Reference radio astronomy antenna pattern to be used for compatibility analyses between non-GSO systems and radio astronomy service stations based on the epfd concept | No. 5.208B (via Resolution 739 (Rev.WRC‑19), No. 5.372, No. 5.443B (via Resolution 741 (Rev.WRC-15)), No. 5.551H, Appendix 4 Annex 2 (item A.17.b.3) (via Resolution 741 (Rev.WRC-15)) |   | WP 7D |  |
| **M.1642-2** | Methodology for assessing the maximum aggregate equivalent power flux-density at an aeronautical radionavigation service station from all radionavigation-satellite service systems operating in the 1 164-1 215 MHz band | Nos. 5.328A (via Resolution 609 (Rev. WRC‑07)) |   | WP 4C |  |
| **M.1643-0** | Technical and operational requirements for aircraft earth stations of aeronautical mobile-satellite service including those using fixed-satellite service network transponders in the band 14-14.5 GHz (Earth-to-space) | No. 5.504B (refers to Annex 1, Part C of Rec. ITU-R M.1643-0), Nos. 5.504C, 5.508A and 5.509A (refer to Annex 1, Part B of Rec. ITU-R M.1643-0) |   | WP 4C |  |
| **M.1652-1 (Annex 1 and Annex 5 )** | Dynamic frequency selection in wireless access systems including radio local area networks for the purpose of protecting the radiodetermination service in the 5 GHz band | No. 5.446A, 5.447F, 5.450A (via Resolution 229 (Rev.WRC-19)) |   | WP 5A |  |
| **M.1827-1** | Guideline on technical and operational requirements for stations of the aeronautical mobile (R) service limited to surface application at airports in the frequency band 5 091-5 150 MHz | No. **5**.444B (via Resolution 748 (Rev.WRC-19)) |   | WP 5B |  |
| **M.2013-0** | Technical characteristics of, and protection criteria for non-ICAO aeronautical radionavigation systems, operating around 1 GHz | No. 5.327A (via Resolution 417 (Rev.WRC-15)) |   | WP 5B |  |
| **RS.2065-0** | Protection of space research service (SRS) space-to-Earth links in the 8 400-8 450 MHz and 8 450-8 500 MHz bands from unwanted emissions of synthetic aperture radars operating in the Earth exploration-satellite service (active) around 9 600 MHz | No. 5.474C |   | WP 7C |  |
| **RS.2066-0** | Protection of the radio astronomy service in the frequency band 10.6-10.7 GHz from unwanted emission of synthetic aperture radars operating in the Earth exploration-satellite service (active) around 9 600 MHz  | No. 5.474B | Ann.29 to Doc 7C/361(May 2022)(WD) | WP 7C |  |

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1. WRC-23-IRW-21/15 <https://www.itu.int/md/R19-WSHWRC23-C-0015/en> (December 2021) [↑](#footnote-ref-1)