|  |  |  |
| --- | --- | --- |
|  | ASIA-PACIFIC TELECOMMUNITY | Document No: |
| **The 2nd Meeting of the APT Conference Preparatory Group for WRC-23 (APG23-2)** | **APG23-2/INF-02** |
| 19 – 23 April 2021, Virtual/Online Meeting | 14 March 2021 |

Chairman, DG on AI 1.13

**brief on wrc-23 agenda item 1.13**

(Note: *This brief was developed for information purpose only. It does not necessarily express the view of APG-23*)

**Agenda Item 1.13:**

*1.13 to consider a possible upgrade of the allocation of the frequency band 14.8-15.35 GHz to the space research service, in accordance with Resolution* ***661 (WRC-19)***

**Relevant Resolutions and Responsible/Contributing ITU-R Groups**

|  |  |
| --- | --- |
| Resolution **661 (WRC-19)**  Examination of a possible upgrade to primary status of the secondary allocation to the space research service in the frequency band 14.8 15.35 GHz | resolves to invite ITU-R  1 to investigate and identify all relevant scenarios mentioned in *recognizing* *a)* to *c)* that need to be considered in compatibility and sharing studies, taking into account the latest relevant ITU‑R Recommendations;  2 to conduct and complete in time for WRC‑23 sharing and compatibility studies in order to determine the feasibility of upgrading the SRS allocation to primary status in the frequency band 14.8‑15.35 GHz, with a view to ensuring protection of the primary service in *considering a)* and*d)* and taking into account *recognizing* *e)*;  3 to determine the technical and regulatory conditions according to the results of studies mentioned in *resolves to invite ITU‑R*2,  resolves to invite administrations  to participate actively in the studies and provide the technical and operational characteristics of the systems involved by submitting contributions to ITU‑R,  invites the 2023 World Radiocommunication Conference  to examine, on the basis of the results of studies by the ITU Radiocommunication Sector, the possibility of upgrading the secondary status of the allocation to the SRS to primary status in the frequency band 14.8-15.35 GHz, taking into account studies in *resolves to invite ITU‑R* 2 and the considerations in *resolves to invite ITU‑R*3. |

|  |  |
| --- | --- |
| **Responsible group** | **Contributing group** |
| **WP 7B** | **WP 3M, WP 5A, WP 5B, WP 5C, WP 7C, WP 7D** |

**1. Background Information**

The frequency band 14.8-15.35 GHz is used by some countries as the secondary SRS allocation for data relay systems (DRS), supporting telemetry and downlink data transmission from DRS to earth stations as well as the transmission from low orbit spacecraft to DRS. Considering that there is an interest among space agencies and administrations to use this frequency band in scientific missions, WRC-19 adopted Resolution **661** to develop compatibility and sharing studies on this frequency band during WRC-23.

During the CPM23-1 meeting, WP 7B was designated as the responsible group for this agenda item and identified WP 3M, WP 5A, WP 5C, WP 7C, WP 7D as the contributing group to the development of the CPM23 Report.

Relevant ITU-R documents:

* [Resolution **661** (WRC-19)](https://www.itu.int/dms_pub/itu-r/oth/0c/0a/R0C0A00000D0013PDFE.pdf) “Examination of a possible upgrade to primary status of the secondary allocation to the space research service in the frequency band 14.8-15.35 GHz”
* [ITU-R Rec. SA.510-3](https://www.itu.int/rec/R-REC-SA.510-3-201707-I/en) “Feasibility of frequency sharing between the space research service and other services in bands near 14 and 15 GHz - Potential interference from data relay satellite systems”
* [ITU-R Rec. SA.1414-2](https://www.itu.int/rec/R-REC-SA.1414-2-201707-I/en) “Characteristics of data relay satellite systems”
* [ITU-R Rec. SA.1626-1](https://www.itu.int/rec/R-REC-SA.1626-1-201312-I/en) “Feasibility of sharing between the space research service (space-to-Earth) and the fixed and mobile services in the band 14.8-15.35 GHz”

**2. Information on on-going ITU-R Study**

On 21-24 April 2020, an E-Meeting was held for WP 7B. At this meeting, liaison statements were agreed to send to WP 5A, 5B, 5C, 7C and 7D for information and characteristics requiring in the frequency band 14.8-15.35 GHz and the bands adjacent to this range. The WP 7B also proposed a draft work plan, two working documents for new ITU-R Recommendation and new ITU-R Report for this agenda item, respectively.

During the second E-meeting of the new study cycle in September 2020, the reply liaison statements were received from the contributing groups, the relevant information from these groups will be used for the compatibility studies between the incumbent services and the SRS in the frequency band14.8-15.35 GHz. The above working documents will be considered in more detail at the meeting in April 2021.

Relevant ITU-R WP 7B documents (TIES required):

* [Working document 7B/66](https://www.itu.int/dms_ties/itu-r/md/19/wp7b/c/R19-WP7B-C-0066!!MSW-E.docx) “Report on the September 2020 meeting of working party 7B with a view to its next meeting (April 2021)”
* [Working document 7B/66 Annex 1](https://www.itu.int/dms_ties/itu-r/md/19/wp7b/c/R19-WP7B-C-0066!N01!MSW-E.docx) “Working document toward a preliminary draft new Report ITU-R SA.[15 GHZ SRS SHARING]”
* [Working document 7B/66 Annex 2](https://www.itu.int/dms_ties/itu-r/md/19/wp7b/c/R19-WP7B-C-0066!N02!MSW-E.docx) “Working document toward a preliminary draft new Recommendation ITU-R SA.[15 GHZ SRS CHARACTERISTICS]”
* [Working document 7B/66 Annex 3](https://www.itu.int/dms_ties/itu-r/md/19/wp7b/c/R19-WP7B-C-0066!N03!MSW-E.docx) “Proposed Working Party 7B workplan for Agenda Item 1.13”

**3. Position of the Regional Group**

* ASMG (July 2020)

Inviting ASMG administrations to study their existing services in the band 15.35-15.8 GHz.

Consider the possibility of upgrading the allocation of the frequency band 14.8-15.35 GHz to the Space Research Service without imposing unnecessary restrictions on the adjacent bands for the feeder links broadcasting-satellite service in Appendix 30A.

* CEPT (December 2020)

CEPT is supporting upgrade of SRS allocation from secondary to primary while ensuring protection for in-band FS/MS and passive services in adjacent bands.

* CITEL (December 2020)

An Administration supports studies in accordance with Resolution 661 (Rev. WRC-19) to consider a possible upgrade to the existing global allocation to the SRS in the frequency range 14.8-15.35 GHz, taking into account the need to provide protection to and to not impose constraints on incumbent services in this frequency band and adjacent frequency bands.

* RCC (September 2020)

The RCC Administrations are in favour of upgrading the allocation of the frequency band 14.8-15.35 GHz to the space research service while protecting FS and MS in this frequency band, as well as protecting of passive services in the adjacent frequency band 15.35-15.4 GHz, taking into account results of the compatibly and sharing studies. Upgrading of the allocation of the frequency band 14.8-15.35 GHz to the space research service should not impose constraints on the incumbent FS and MS systems in the frequency band 14.8-15.35 GHz.

**4. Position of International Organizations**

* ICAO (August 2020)

To support studies called for by Resolution 661 (WRC-19) ensuring that they take account of systems operating in the aeronautical mobile service.

To ensure that any radio regulatory action taken as a result of agreed studies does not adversely affect the provision of aeronautical services.

* WMO and EUMENTNET (February 2020)

WMO is not opposed to the upgrading the existing space research service (SRS) secondary allocation in 14.8-15.35 GHz to primary status. Compatibility studies may be required with EESS (passive) when its usage will have been assessed in the 15.35-15.4 GHz frequency band.

* SFCG (August 2020)

SFCG supports the development of studies in ITU-R in order to assess the compatibility between SRS and incumbent services in the band 14.8-15.35 GHz with a view of upgrading the allocation to SRS in the band to a primary allocation.

SFCG supports that those studies should address the protection of the EESS (passive) in the band 15.35-15.4 GHz.

Consideration should also be given to the secondary allocation to the EESS (passive) and SRS (passive) in the band 15.2-15.35 GHz.