IWG-2/077r1 (07.09.18)

Alex Roytblat- Wi-Fi Alliance

**UNITED STATES OF AMERICA**

**DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE**

**Agenda Item 1.13**: *to consider identification of frequency bands for the future development of International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution 238* ***(WRC-15)***

**Background Information:**

The frequency band 66-71 GHz is allocated on the primary basis to inter-satellite, mobile-satellite radionavigation-satellite, mobile and radionavigation services. To date, very few, studies have been carried out to confirm IMT compatibility with some of the existing or planned networks operating under these allocations as part of the preparations for World Radiocommunication Conference 2019 (WRC-19) agenda item 1.13.

License-exempt access to spectrum plays a critical role in providing connectivity for users worldwide. In recognition of this fact, many countries have designated this frequency band for licence-exempt 5G (e.g. WiGig) technologies. In the United States, while issuing rules to facilitate 5G, the FCC [decided](https://apps.fcc.gov/edocs_public/attachmatch/DOC-347449A1.pdf) to maintain the unlicensed use of the 64-71 GHz band. Similarly, the European Union’s Radio Spectrum Policy Group stated, “*general authorised frequency use can be an important breeding ground for innovation and contributes towards a dynamic market environment. The application of a general authorisation regime is foreseen in the 66-71 GHz band which could be an important band for 5G.*”[[1]](#footnote-1)

In many administration, the use of the 66-71 GHz band by applications in the Mobile service is regulated on a license-exempt, technology neutral basis, similar to the 2.4 GHz and 5 GHz bands. Under this approach regulators adopted rules for unlicensed devices that are designed to prevent harmful interference to authorized radio services through limits on transmitter power and spurious emissions, while industry has developed standards within the framework of these rules, generally with the intention of ensuring cooperative sharing of the spectrum by unlicensed devices. Such approach resulted in numerous benefits and innovative products for consumers. There is significant risk that identification of the 66-71 GHz band for IMT at WRC-19 would disrupt this dynamic by implying a different regulatory regime for one Mobile service application (i.e., IMT) over all others.

It is also important to recognize the nascent state of 5G ecosystem in the 60-70 GHz frequency range. Multi-gigabit devices are just beginning to be introduced into the market. Growing demand has been driving technological developments towards much higher throughputs (20 Gbps and higher), which can be attained only with corresponding spectrum capacity. In ITU-R significant efforts are underway to advance implementation of Multiple Gigabit Wireless Systems (MGWS) systems in 66-71 GHz frequency band.[[2]](#footnote-2)

It is difficult to predict how technologies, spectrum needs, market demands and other factors will evolve in this frequency range. In the absence of this understanding, an international treaty-level regulatory action on the 66-71 GHz band at WRC-19 under agenda item 1.13 would be premature and counterproductive. Identifying 66-71 GHz for IMT would do little to achieve international harmonization. Instead, such action would be highly disruptive to existing operations and discourage ongoing research and development of other types of 5G, multi-gigabit technologies.

# Proposals:

# NOC USA/1.13/66-71GHz/1

ARTICLE 5

Frequency allocations

66-81 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 66-71 INTER-SATELLITE  MOBILE 5.553 5.558  MOBILE-SATELLITE  RADIONAVIGATION  RADIONAVIGATION-SATELLITE  5.554 | | |

**Reason**: Studies have not been carried out in preparation for WRC-19 to show IMT compatibility with existing and planned space services networks, and radionavigation systems in the 66-71 GHz band. IMT identification in the 66-71 GHz band would be counterproductive to achieving international harmonization as many administrations confirmed plans for implementation of licence-exempt, non-IMT, 5G technologies such as Multiple Gigabit Wireless Systems (MGWS) systems.

1. *See* [RSPG Second Opinion on 5G Networks](https://circabc.europa.eu/sd/a/fe1a3338-b751-43e3-9ed8-a5632f051d1f/RSPG18-005final-2nd_opinion_on_5G.pdf) [↑](#footnote-ref-1)
2. *See* ITU-R Doc. 5-1/32, Recommendation ITU-R [M.2003](http://www.itu.int/rec/R-REC-M.2003/en)-2 and Report ITU‑R [M.2227](http://www.itu.int/pub/R-REP-M.2227) [↑](#footnote-ref-2)