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| APPEAL TO WRC-19 REGARDING THE REFERENCE SITUATION OF MONGOLIAN SATELLITE SYSTEM (113.6° E) IN THE FSS PLAN |
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Background

Mongolia is the 18th largest and the most sparsely populated country in the world, with a population of around three million people. It is also the world’s second-largest landlocked country in the world. Approximately 30% of the population is nomadic or semi-nomadic. Like many other countries, satellite communication systems are indispensable for the Administration of Mongolia to address the societal needs for its citizens in application areas like tele-education, tele-medicine in the vast areas of the country including hilly and Gobi desserts and remote areas.

The Administration of Mongolia intends to launch a national satellite system relying on the use of its national allotment at 113.6° E. In 2013, we reported to both BR and INTERSPUTNIK an issue regarding the INTERSPUTNIK-119E-F satellite network, for which § 6.15 of Article 6 of Appendix 30B was applied, triggering a severe degradation of the reference situation of Mongolian national allotment.

The Administration of Mongolia is deemed to have agreed with the frequency assignments of INTERSPUTNIK-119E-F satellite network in accordance with § 6.15 of Appendix 30B to the ITU Radio Regulations. The ITU Radiocommunication Bureau has updated the reference situation of Mongolian MNG00000 and SANSAR-1 satellite networks accordingly.

Mongolia has recently started the activities aimed at implementing the national satellite project using the above networks. Based on the analysis performed by our administration, we believe that the updated reference situation may not guarantee the interference-free operations of the national satellite and, therefore, we would like to explore all available means to restore it.

We understand that improving the reference situation for Mongolian networks would require introducing certain modifications to the already recorded INTERSPUTNIK-119E-F satellite network: specifically, a decrease of downlink e.i.r.p. towards Mongolian territory. We also recognize that currently no provision in the ITU Radio Regulations permits modification of parameters of a recorded satellite network, even if such modification would not lead to increase of interference to adjacent or collocated satellite networks of other administrations, and so a decision of WRC is needed to potentially permit that on exceptional basis.

Proposal

The Administration of Mongolia brings out the following for the WRC considerations to allow a modification of the parameters of notified frequency assignments at 119.1° E so as to improve the reference situation for both MNG00000 and SANSAR-1 networks:

– a decrease of the Ku-band downlink e.i.r.p. of INTERSPUTNIK-119E-F satellite network towards Mongolian territory to 54.15 dBW/36MHz (corresponding to −21.41 dBW/Hz e.i.r.p. density) and a reduction of the maximum Ku-band power spectral density of INTERSPUTNIK-119E-F satellite network for the test points of frequency assignment group number 41057 located in Mongolian territory from −40 dBW/Hz to −45.3 dBW/Hz (corresponding to −2.1 dBW/Hz maximum e.i.r.p. density for these test points due to maximum isotropic gain of 43.2 dBi for the associated earth station to this frequency assignment group) without affecting any other parameter of that network and to update the reference situation of MNG00000 and SANSAR-1 networks accordingly.

In view of the above and the reasons explained for the reference situation of the Mongolian Satellite System (113.6° E) in the FSS Plan, the Administration of Mongolia requests WRC to take decision on the matter.

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