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| **ITU Centres of Excellence Network for Asia and the Pacific**  **State Radio Monitoring Center - China**  **Training on**  **SPECTRUM ENGINEERING AND CROSS-BORDER RADIO FREQUENCY COORDINATION**  **Xi’an, Shanxi Province, China (Peoples Republic of)**  **11 – 15 September 2017** |
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Group 5 Exercise: Radio Interference in Border Areas

**Background**

As we all know, radio frequency as one of the non-copyable resources, has a very important position for one Administration. To protect frequency resources is to protect the legitimate rights and interests of a sovereign state. Therefore, it is an obligation of a competent authority to declare the frequency and station information used by each country and to include it in the Master International Frequency Registration (MIFR) and to establish its legal status at the international level. The stations included in the MIFR could be recognized internationally and enjoy the right to be protected. The stations that have not been declared for unauthorized use are not protected by the international community and could not interfere with the other stations in MIFR.

According to the radio signal propagation characteristics, the radio signal could not stop at the border line, so planning and coordination of frequency resources could well avoid interference. But the interferences still often occur in the border areas because of different reasons.

Often interference includes unintentional interference and intentional interference.

If the interference frequency from the other administration is coordinated by both sides or has entered into the Master International Frequency List, usually the interference is unintentional. In this situation you could send your interference complaint to the other administration, and they should check the parameters of their stations to see if there’s something wrong, and then to eliminate the interference. Usually unintentional interference is often caused by intermodulation, harmonic or out-of-band leaks that could be prevented by interference monitoring, interference analysis and equipment verification.

Intentional interference usually occurs when and uncoordinated frequency is used or a free channel is occupied by transmitting high-power signals. In response to this situation, Radio Regulation and bilateral agreements should be used as rules to complain and safeguard your own interests.

**ASSIGNMENT**

Questions：

* What types of interferences do you country often encounter?
* When encountering malicious interference, how should we normally process with the help of ITU regulation?
* How do your country usually do to reduce the possibility of interference?
* Does your country have any bilateral or multilateral frequency cooperation agreement? If yes, give some details about it.

**Your response should be in the form of presentation delivered by maximum 3 persons nominated by the group. The maximum time is 15 minutes. Views within group can be divergent and all views should be presented.**