

Technical criteria and principles concerning the use of the frequency band 790-862 MHz for terrestrial systems agreed between the Office of Electronic Communications of the Republic of Poland and the State Supervisory Department for Telecommunications of the Ministry of Telecommunications and Informatization of the Republic of Belarus

Minsk, October 2011

Preamble

According to Article 6 of the Radio Regulations, the representatives of the Office of Electronic Communications of the Republic of Poland and the State Supervisory Department for Telecommunications of the Ministry of Telecommunications and Informatization of the Republic of Belarus (hereinafter referred to as Parties) have agreed the present Technical criteria and principles concerning the use of the frequency band 790-862 MHz with the purpose of avoiding mutual interference and optimising the use of the above-stated frequency band on a mutually coordinated basis.

These Technical criteria and principles don't abrogate the fulfillment of the protection requirements for broadcasting service stipulated in GE-06 Regional Agreement until TV broadcasting is canceled in the frequency band 790-862 MHz and the respective Party informs about it.

1 Principles

- 1.1 These Technical criteria and principles are based on the concept of coordination threshold and the idea of symmetrical conditions for both Parties.
- 1.2 These Technical criteria and principles cover the coordination¹ between land mobile services of both countries and between land mobile service and aeronautical radionavigation service.
- 1.3 The frequency arrangement for land mobile service conforms to the FDD frequency arrangement and parameters of transmission for base and user stations in accordance with ECC/DEC(09)03.
- 1.4 TDD frequency arrangement of mobile services is not covered by these Technical criteria and principles.
- 1.5 These Technical criteria and principles apply to stations of the services listed in item 1.2 and brought into use after the date mentioned in Article 6 of these Technical criteria and principles.

2 Use of frequencies

- 2.1 The Republic of Poland may use the frequency band 790-821 MHz without coordination with the Republic of Belarus if the following conditions are met:
 - if the predicted mean field strength produced by a station during transmission does not exceed 46 dB(μ V/m)/1 MHz and 53 dB(μ V/m)/5 MHz at a height of 10 m above the ground at the border;
 - if the base stations of land mobile service are located at a distance from the border not less than 15 km, service radius for base station should not cover areas which are closer than 7 km from a border;
 - for the base station of land mobile service located at the distance of less than 50 km from the border e.i.r.p. shall not exceed 55 dBm/5 MHz in any direction to the border of the Republic of Belarus;

¹ The term «coordination» should be understood as bilateral coordination between Parties without involving BR in this process. The document given under this bilateral coordination shall be considered by Parties as agreed under relevant RR procedure.

- Deployment density of base stations operating simultaneously in the common frequency band of land mobile service shall not exceed 1 base station per 100 km² in area of 15 – 30 km from the border and 50 base stations per 100 km² in area of 30 – 60 km from the border. The effective antenna height in any direction to the border of the Republic of Belarus shall not be more than 60 m in the area of less than 60 km from the border (Note 1).

Note 1: Limitations of technical parameters for base stations located at a distance from the border greater than 60 km are not applied.

Technical data with respect to a planned frequency assignment of base station in the ITU filing format shall be provided by the Office of Electronic Communications of the Republic of Poland to the State Supervisory Department for Telecommunications of the Ministry of Telecommunications and Informatization of the Republic of Belarus for information before this frequency assignment in the border area at distance of up to 60 km from the border is brought into use.

2.2 The Republic of Belarus may use the frequency band 790-821 MHz without coordination with the Republic of Poland if the following conditions are met:

- if the predicted mean field strength produced by a station during transmission does not exceed 46 dB(μ V/m)/1 MHz and 53 dB(μ V/m)/5 MHz at a height of 10 m above the ground at the border;
- if the base stations of land mobile service are located at a distance from the border not less than 15 km, service radius for base station should not cover areas which are closer than 7 km from a border;
- for the base station of land mobile service located at the distance of less than 50 km from the border e.i.r.p. shall not exceed 55 dBm/5 MHz in any direction to the border of the Republic of Poland;
- Deployment density of base stations operating simultaneously in the common frequency band of land mobile service shall not exceed 1 base station per 100 km² in area of 15 – 30 km from the border and 50 base stations per 100 km² in area of 30 – 60 km from the border. The effective antenna height in any direction to the border of the Republic of Poland shall not be more than 60 m in the area of less than 60 km from the border (Note 2).

Note 2: Limitations of technical parameters for base stations located at a distance from the border greater than 60 km are not applied.

Technical data with respect to a planned frequency assignment of station in the ITU filing format shall be provided by the State Supervisory Department for Telecommunications of the Ministry of Telecommunications and Informatization of the Republic of Belarus to the Office of Electronic Communications of the Republic of Poland for information before this frequency assignment in the border area at distance of up to 60 km from the border is brought into use.

2.3 The Republic of Poland may use the frequency band 832-862 MHz for user equipment of the land mobile service without coordination with the Republic of Belarus if compliance with item 2.1 is ensured.

The aggregate e.i.r.p. value of all user equipment operating simultaneously in the common frequency band with one base station shall not exceed 28 dBm/5 MHz and 21 dBm/1 MHz².

- 2.4 The Republic of Belarus may use the frequency band 832-862 MHz for user equipment of the land mobile service without coordination with the Republic of Poland if compliance with item 2.2 is ensured.

The aggregate e.i.r.p. value of all user equipment operating simultaneously in the common frequency band with one base station shall not exceed 28 dBm/5 MHz and 21 dBm/1 MHz².

- 2.5 Aeronautical radionavigation stations of the Republic of Belarus may use the frequency bands 832-862 MHz without coordination with the Republic of Poland provided that technical characteristics except carrier frequency of the stations brought into use before the date of signing of this document (see item 1.5) are kept unchanged. In case carrier frequency of aeronautical radio navigation stations is changed in the above-mentioned frequency bands the State Supervisory Department for Telecommunications of the Ministry of Telecommunications and Informatization of the Republic of Belarus shall inform the Office of Electronic Communications of the Republic of Poland indicating new carrier frequency not later than 10 weeks before these assignments are brought into use (see also "Preamble").
- 2.6 Aeronautical radionavigation stations of the Republic of Poland may use the frequency bands 832-862 MHz without coordination with the Republic of Belarus provided that technical characteristics except carrier frequency of the stations brought into use before the date of signing of this document (see item 1.5) are kept unchanged. In case carrier frequency of aeronautical radio navigation stations is changed in the above-mentioned frequency bands the Office of Electronic Communications of the Republic of Poland shall inform the State Supervisory Department for Telecommunications of the Ministry of Telecommunications and Informatization of the Republic of Belarus indicating new carrier frequency not later than 10 weeks before these assignments are brought into use (see also "Preamble").

3 General

- 3.1 A new frequency assignment exceeding the above-mentioned coordination threshold values shall be coordinated with the other Party.
- 3.2 The coordination procedure shall be performed in accordance with Article 4 of these Technical criteria and principles.
- 3.3 Preliminary coordination may take place between any land mobile service operators concerned. The results of such preliminary coordination must be approved by the Parties.
- 3.4 In the presence of interference produced by a station covered by this document, the Report of harmful interference shall be presented in accordance with Appendix 10 of the Radio Regulations. The Parties shall take all possible measures in order to eliminate the interference as soon as possible.

² The maximum e.i.r.p. of user equipment is equal to 23 dBm in frequency band of 5 MHz.

- 3.5 The field strength specified in the interference report (see Item 3.4) shall be based on the median values of measurements of field strength performed at antenna height stipulated in Article 2 at least in two different points over a range of at least 100 m along the border.
- 3.6 The predicted field strength values in these Technical criteria and principles are calculated according to the ITU-R Recommendation P.1546-4 for 10% time and 50% locations.
- 3.7 The ITU-R Recommendation P.1546-4 "Method for point-to-area predictions for terrestrial services in the frequency range 30-3000 MHz" shall be used for calculations of the field strength value produced by ground stations.
- 3.8 The ITU-R Recommendation P.525-2 "Calculation of free space attenuation" shall be used for calculations of the field strength value produced by or to airborne station.
- 3.9 Deployment density of base stations is determined for base stations of land mobile service operating simultaneously in the common frequency band.

4 Coordination procedure

- 4.1 The Party wishing to initiate the use of a frequency assignment to the station covered by these Technical criteria and principles that does not correspond to the terms specified in Article 2 of this document shall send to the other Party a request to coordinate such frequency assignment. A request can be sent by mail, fax or e-mail. In case if a request is sent by e-mail the requesting Party shall send by fax a covering letter to the affected Party and to receive a confirmation of its receipt.
- 4.2 The affected Party shall provide a feedback in respect of the request to coordinate assignments within 10 weeks from the date of the request receipt. If no feedback was received, an urgent reminder shall be sent. Parties that failed to respond within 2 weeks from the date of an urgent reminder receipt shall be deemed agreeing if the Party, a consent of which is sought, did not ask for extra time needed to coordinate the request review.
- 4.3 In case of a refusal of the affected Party to satisfy the request for coordination the requesting Party shall provide to the affected Party results of its calculations, or any new technical characteristics of the assignment.
- 4.4 If no response from the affected Party to the proposals provided in Item 4.3 was received within 10 weeks from the date of proposals receipt, an urgent reminder shall be sent. Parties that failed to respond within 2 weeks from the date of receipt of an urgent reminder shall be deemed agreed to the provided proposals on coordination.
- 4.5 The Party objecting to the received request for coordination shall provide results of its calculations and a proposal for reasonable changing of the request that shall not only provide for adequate protection for its available and planned services, but to the maximal possible extent shall preserve an initial objective of the request for coordination.
- 4.6 In case of controversies originating from applying of these Technical criteria and principles Parties shall be governed by provisions and procedures of the Radio Regulations, as well as applicable International and bilateral Agreements.

4.7 If coordination of frequency assignment is required the following principles apply:

- When examining the coordination requests for frequency assignments not meeting the conditions set in Article 2 of these Technical criteria and principles, the aggregate interference from stations coordinated and stations brought into use under these Technical criteria and principles shall be taken into account.
- The calculations shall be performed according to items 3.6 and 3.7 of these Technical criteria and principles by power sum method taking into account each individual station.

5 Revision and cancellation

5.1 This document may be cancelled as desired by one of the Parties with a notice of at least one year. This does not affect the operation of stations already brought into use or coordinated under these Technical criteria and principles.

5.2 After such cancellation, Parties will exchange the list of stations already brought into use or coordinated under these Technical criteria and principles.

5.3 This document may be revised or cancelled without previous notice, if mutual understanding is reached between the Parties.

5.4 This document is subject to be revised in case one of the Parties decides to suspend the use of the frequency band 790-862 MHz in the border area by any service indicated in item 1.2.

5.5 In case the current procedures and frequency allocations of the Radio Regulations for the frequency band 790-862 MHz are changed these Technical criteria and principles shall be confirmed or revised.

5.6 In case the study results on the usage of the frequency band 790-862 MHz by radio services indicated in item 1.2 are agreed by both Parties these Technical criteria and principles can be revised taking into account these results.

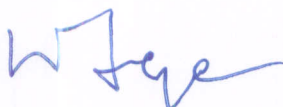
6 Coming into force

This document shall come into force on the date of the signing.

This document has been drawn up in two identical copies, one for the Republic of Poland and one for the Republic of Belarus.

Minsk, 13th October 2011.

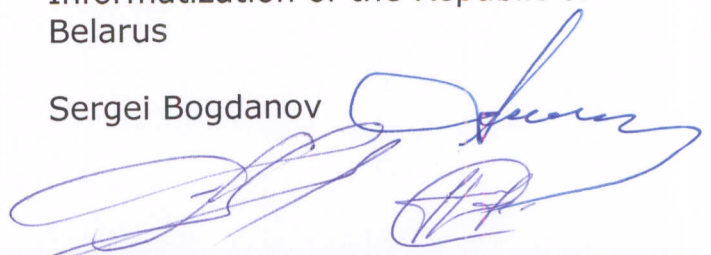
For the Office of Electronic
Communications of the Republic of
Poland

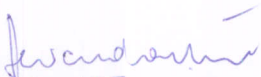


Wiktor Segal

For State Supervisory Department for
Telecommunications of the Ministry of
Telecommunications and
Informatization of the Republic of
Belarus

Sergei Bogdanov




Tyniś