ÄRENDE

Diarienr: 06-10725 **Dossnr:** 18 - Gemensamt för verksamhetsgren Radio

Registrerad av:	Regdatum:	I/U	Ink/uppr datum
Ann-Christin Sundberg	2006-06-21	ut	2006-06-21

Avdelning : Spektrumavdelningen
Enhet: Rundradio tillstånd (S4)
Handläggare: Per Kjellin
Tillst/Typgnr:

Namn får visas på Internet : Ja
Namn/företag: Post- och telestyrelsen
Adress Stockholm, Sverige
Externt dnr/referensnr:

Ärenderubrik: Detaljkoordinering av DAB och DVB-T
Förvaltningsärende: Nej **Sekretess:** Nej
Överklagande: Nej
Besluts/avslutsdatum:

ÖVRIGA UPPGIFTER

Kompletteringsdatum:
Beslutsstatus:

HANDLING (ÄTGÄRD, AKTBILAGOR)

Diarienr	In/ut datum	Rubrik
06-10725-1	2006-06-21	Avtal

Agreement between Russian Federation and Sweden concerning the use of the broadcast band planned at the RRC 2006 conference.

The parties agreed that for the compatibility between Swedish digital broadcasting assignments/allotments and other primary services of the Russian Federation, the conditions in the summary records from the coordination meeting in Kiev 10-14 October 2005 applies.

The Swedish administration accepts the interference level on its DVB-T allotments caused by DVB-T assignments of the Russian Federation with the technical characteristics indicated in the input requirements used for the second planning iteration at the RRC-06 (Reference: CD-ROM issued by the ITU-R BR).

The administration of the Russian Federation accepts the interference level on its DVB-T allotments caused by the Swedish DVB-T assignments with the technical characteristics indicated in the input requirements used for the second planning iteration at the RRC-06 (Reference: CD-ROM issued by the ITU-R BR).

Regarding allotments with technical characteristics indicated in the input requirements used for the second planning iteration at the RRC-06 (Reference: CD-ROM issued by the ITU-R BR), the parties agree that any future implementation of these allotments shall be coordinated with the other party if the cumulative interfering field strength from that implementation exceeds the values listed in Annex 1 on the boundary of any existing co-channel/co-block allotment in the Plan.

The Swedish administration accepts the following assignments (Long: 020E29 39, Lat: 54 N 43 43; Maximum effective antenna height 178 m) to be implemented in allotment Kaliningrad (RPC 2; RN 2):

- Channel 30 and 42 provided that the radiated power in the sector 290-310 degrees is limited to 40 dB (W) ERP.
- Channel 41 provided that the radiated power in the sector 330-350 degrees is limited to 37 dB (W) ERP and in the sector 280-290 degrees is limited to 47 dB (W) ERP.
- Channel 47 provided that the radiated power in the sector 300-320 degrees is limited to 40 dB (W) ERP.

Geneva, 1 June 2006

For the Administration of the Russian Federation

Victor Strelets

For the Administration of Sweden

Anders Frederich

Annex 1 to agreement between the Russian Federation and Sweden

Interfering field strength requiring coordination

If the cumulative interfering field strength exceeds the values listed in Table 1-4 below on the boundary of any co-channel/co-block allotment in the Plan, coordination with the other party is needed.

For affected DVB-T it's proposed to use the $E_{max\ int}$ for RPC2 and for affected T-DAB it's proposed to use the $E_{max\ int}$ for RPC5.

DVB-T interfered by DVB-T for 200 MHz and 650 MHz respectively

Reference planning configuration	**RPC2**
Reference location probability	95%
Reference C/N [dB]	19
Reference (Emed)ref [dBμV/m] at 200 MHz	67
Reference (Emed)ref [dBμV/m] at 650 MHz	78
CF at 200 MHz	12.8
CF at 650 MHz	12.8
IM	2.8
$E_{max\ int}$ [dBμV/m] at 200 MHz	**38**
$E_{max\ int}$ [dBμV/m] at 650 MHz	**49**

Table 1 $E_{max\ int}$ for DVB-T interfered by DVB-T

In UHF the value should be adjusted with respect to frequency with $30*\log(f/f_{650})$, f in MHz.

T-DAB interfered with by T-DAB for 200 MHz

Reference planning configuration	**RPC5**
Location probability	95%
Reference *C/N* [dB]	15
Reference $(E_{med})_{ref}$ [dBμV/m]	66
CF	14.6
IM	2.6
$E_{max\ int}$ [dBμV/m]	**39**

Table 2 $E_{max\ int}$ for T-DAB interfered by T-DAB

DVB-T interfered by T-DAB for 200 MHz

Reference planning configuration	RPC2
Reference location probability	95%
Protection ratio [dB]	23.6
Reference (Emed)ref [dBµV/m] at 200 MHz	67
CF at 200 MHz	12.8
IM	2.4
$E_{max\ int}$ [dBµV/m]	**33**

Table 3 $E_{max\ int}$ for DVB-T interfered by T-DAB

T-DAB interfered with by 7 MHz DVB-T for 200 MHz

Reference planning configuration	RPC5
Location probability	95%
Protection ratio [dB]	9
Reference $(E_{med})_{ref}$ [dBµV/m]	66
CF	14.6
IM	2.6
$E_{max\ int}$ [dBµV/m]	**45**

Table 4 $E_{max\ int}$ for T-DAB interfered with by 7 MHz DVB-T

Derivation maximum allowable interfering field strength

The maximum allowable interfering field strength, $E_{max\,int}$, at any test point given by the input requirement is calculated as follows:

$$E_{max\,int} = E_{med} + f_{corr} - CF - PR + IM$$

where

E_{med} is the minimum median equivalent field strength (in dBµV/m)
for 200 MHz and 650 MHz, respectively;

f_{corr} is the frequency correction (in dB) for UHF, given by 30*log(f/f_{650}), f in MHz;

CF is the combined location correction factor: CF = $q\sqrt{\left(\sigma_w^2 + \sigma_i^2\right)}$;

q is the distribution factor;

σ_w is the standard deviation of the lognormal distribution of the wanted signal (in dB);

σ_i is the standard deviation of the lognormal distribution of the interfering signal (in dB);

PR is the appropriate protection ratio;

When the interfering system is of the same type as the wanted one, PR is equal to C/N for the wanted system's RPC. PR and C/N are taken from Addendum 12 to Document 7-E, input from CEPT to RRC-06.

IM is the implementation margin (in dB).