

AGREEMENT

between the Administrations of

**CROATIA,
SERBIA AND MONTENEGRO
and HUNGARY**

concerning

**allotment of preferential frequencies
and co-ordination of digital land mobile systems
for the emergency services in the frequency bands
380-385/390-395 MHz**

Pécs, 21st March, 2003

1 Preamble

In the framework of the bi- or multilateral agreements dealing with frequency co-ordination in general the Administrations of Serbia and Montenegro, Croatia and Hungary concluded this agreement relating to the allotment of preferential frequencies and co-ordination of digital land mobile systems for the emergency services in the frequency bands 380-385/390-395 MHz according to ERC/DEC/(96)01 and ERC/DEC(01)19

2 Principles - background

- 2.1 The Administrations mentioned above deemed it necessary to conclude an agreement on the frequency use in border areas in conformity with the relevant CEPT Recommendation T/R 02-02 based on the concept of preferential frequencies.
- 2.2 The entire frequency band is divided into blocks of preferential frequencies in a way that equal access to the spectrum is ensured for each Administration.
- 2.3 In order to reduce the administrative workload concerning the great deal of co-ordination requests and speed up the licensing process, Administrations thought it necessary to take the responsibility for giving licences keeping the provisions laid down in this agreement without co-ordination with the neighbouring countries.
- 2.4 Operators have the opportunity to co-operate in order to achieve the most efficient use of the available spectrum in conformity with the provisions laid down in the "Agreement between Administrations concerning arrangements between operators of radiocommunications networks".
- 2.5 Unless otherwise agreed in this agreement the relevant provisions of bi- or multilateral agreements dealing with frequency co-ordination in general shall be applied.

3 Technical provisions

- 3.1 The preferential frequency distribution is given in the Annex.
- 3.2 The bands 380-385/390-395 MHz are divided into blocks of frequencies each of 50 kHz.

3.3 The centre frequency of each channel shall be derived as follows in accordance with CEPT Rec. T/R 25-08:

$$f_n = 380,000 + (n \times W) - W/2 \quad \text{MHz}$$

$$f_{n'} = 390,000 + (n \times W) - W/2 \quad \text{MHz}$$

where f_n and $f_{n'}$ are centre frequencies of the mobile and the base station transmitting radio-frequency channels respectively.

W is the channel separation in MHz and $n = 1, 2, 3, \dots$

3.4 The field strength produced by transmitters using **preferential frequencies** should not exceed 18 dB μ V/m (10% of time, 50% of locations) at 10 m above ground at a distance of 50 km inside the neighbouring country.

3.5 The field strength produced by transmitters using **non-preferential frequencies** (i.e. preferential frequencies belonging to other Administrations) should not exceed 18 dB μ V/m (10% of time, 50% of locations) at 10 m above ground at the border line.

3.6 Each **DMO (Direct Mode Operation)** frequency in the bands 380,000-380,1500 MHz and 390,0000-390,1500 MHz may be used by any of the Signatory Administrations.

3.7 The calculation of the interfering field strength shall be based on the relevant provisions of bi- or multilateral agreements dealing with frequency co-ordination in general.

4 Administrative procedures

4.1 For the frequencies described under 3.4., 3.5. and 3.6. neither co-ordination nor notification is required between administrations.

4.2 Data of base stations will be exchanged on explicit request of any Signatory Administration.

5. Procedure in case of harmful interference

In cases of harmful interference the Administrations affected shall inform each other and endeavour to achieve mutually acceptable solutions.

6 Revision of this Agreement

This agreement can be revised in the light of administrative, regulatory or technical developments at the proposal of any Signatory Administration with the agreement of all other Signatory Administrations.

7 Withdrawal from this Agreement

Any Administration may withdraw from this Agreement by the end of a calendar month by giving notice of its intention at least six months in advance. Frequency assignments made within the framework of this Agreement prior to the date of entry into force of the withdrawal shall remain valid and be protected according to their status.

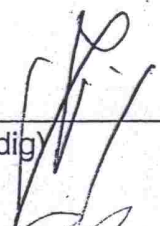
8 Language of the Agreement

This Agreement has been concluded in English in three originals.

9 Date of entry into force of the Agreement

This Agreement enters into force at the date of its signature.

For the Administration of Croatia
on 2.1.1.03./2003



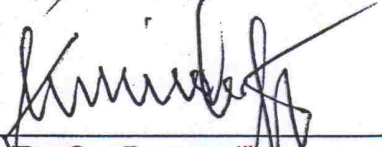
(A. Dodig)

For the Administration of
Serbia and Montenegro
on 2.1.1.03./2003



(A. Bednarik)

For the Administration of Hungary
on 2.1.1.03./2003



(Dr. Gy. Demendi)

Pécs, 21st March, 2003

Preferential allotment of the frequencies in the band 380-385/390-395MHz

Block	Centre frequency (MHz)	Centre frequency (MHz)	COORDINATION AREAS						
			<u>HNG*</u> <u>ROU</u>	<u>HNG**</u> <u>ROU</u> <u>YUG</u>	<u>HNG</u> <u>YUG</u>	<u>HNG</u> <u>HRV</u> <u>YUG</u>	<u>HRV</u> <u>YUG</u>	<u>HNG*</u> <u>HRV</u>	
1	390,0250	380,0250	C(DMO)	C(DMO)	C(DMO)	C(DMO)	C(DMO)	C(DMO)	C(DMO)
2	390,0750	380,0750	C(DMO)	C(DMO)	C(DMO)	C(DMO)	C(DMO)	C(DMO)	C(DMO)
3	390,1250	380,1250	C(DMO)	C(DMO)	C(DMO)	C(DMO)	C(DMO)	C(DMO)	C(DMO)
4	390,1750	380,1750	C(DMO)	HNG	C(DMO)	YUG	C(DMO)	C(DMO)	C(DMO)
5	390,2250	380,2250	ROU	ROU	HNG	HRV	HRV	HRV	HRV
6	390,2750	380,2750	ROU	ROU	HNG	HNG	HRV	HRV	HNG
7	390,3250	380,3250	HNG	YUG	YUG	YUG	YUG	YUG	HRV
8	390,3750	380,3750	HNG	YUG	YUG	HRV	HRV	HRV	HNG
9	390,4250	380,4250	HNG	YUG	YUG	YUG	YUG	YUG	HNG
10	390,4750	380,4750	HNG	HNG	HNG	HNG	YUG	YUG	HNG
11	390,5250	380,5250	HNG	YUG	YUG	YUG	YUG	YUG	HNG
12	390,5750	380,5750	ROU	ROU	YUG	HRV	HRV	HRV	HRV
13	390,6250	380,6250	ROU	ROU	YUG	YUG	YUG	YUG	HNG
14	390,6750	380,6750	ROU	ROU	YUG	YUG	YUG	YUG	HNG
15	390,7250	380,7250	ROU	YUG	YUG	YUG	YUG	YUG	HNG
16	390,7750	380,7750	HNG	HNG	HNG	HRV	HRV	HRV	HRV
17	390,8250	380,8250	ROU	ROU	HNG	HRV	HRV	HRV	HNG
18	390,8750	380,8750	ROU	ROU	HNG	HNG	HRV	HRV	HNG
19	390,9250	380,9250	HNG	YUG	YUG	YUG	YUG	YUG	HRV
20	390,9750	380,9750	ROU	YUG	YUG	HRV	HRV	HRV	HNG
21	391,0250	381,0250	HNG	YUG	YUG	YUG	YUG	YUG	HNG
22	391,0750	381,0750	ROU	ROU	HNG	HNG	YUG	YUG	HNG
23	391,0750	381,0750	ROU	ROU	YUG	YUG	YUG	YUG	HNG
24	391,1250	381,1250	ROU	YUG	YUG	HRV	HRV	HRV	HRV
25	391,1750	381,1750	ROU	YUG	YUG	YUG	YUG	YUG	HRV
26	391,2250	381,2250	ROU	ROU	HNG	YUG	YUG	YUG	HNG
27	391,2750	381,2750	ROU	ROU	YUG	HNG	YUG	YUG	HNG
28	391,3250	381,3250	ROU	ROU	HNG	HRV	HRV	HRV	HRV
29	391,3750	381,3750	ROU	ROU	HNG	HRV	HRV	HRV	HRV
30	391,4250	381,4250	ROU	ROU	HNG	HNG	HRV	HRV	HNG
31	391,4750	381,4750	ROU	ROU	YUG	YUG	YUG	YUG	HRV
32	391,5250	381,5250	ROU	ROU	YUG	HRV	HRV	HRV	HRV
33	391,5750	381,5750	ROU	YUG	YUG	HNG	HRV	HRV	HNG
34	391,6250	381,6250	ROU	ROU	HNG	HNG	HRV	HRV	HNG
35	391,6750	381,6750	ROU	ROU	HNG	HNG	HRV	HRV	HNG
36	391,7250	381,7250	ROU	YUG	YUG	YUG	YUG	YUG	HRV
37	391,7750	381,7750	ROU	ROU	HNG	HRV	HRV	HRV	HRV
38	391,8250	381,8250	ROU	ROU	HNG	YUG	YUG	YUG	HNG
39	391,8750	381,8750	HNG	YUG	YUG	YUG	YUG	YUG	HNG
40	391,9250	381,9250	HNG	YUG	YUG	YUG	YUG	YUG	HNG
40	391,9750	381,9750	HNG	HNG	HNG	HRV	HRV	HRV	HRV

Pécs, 21st March, 2003

Preferential allotment of the frequencies in the band 380-385/390-395MHz

Block	Centre frequency (MHz)	Centre frequency (MHz)	COORDINATION AREAS					
			<u>HNG*</u> <u>ROU</u>	<u>HNG**</u> <u>ROU</u> <u>YUG</u>	<u>HNG</u> <u>YUG</u>	<u>HNG</u> <u>HRV</u> <u>YUG</u>	<u>HRV</u> <u>YUG</u>	<u>HNG*</u> <u>HRV</u>
41	392,0250	382,0250	ROU	ROU	HNG	HRV	HRV	HRV
42	392,0750	382,0750	HNG	YUG	YUG	YUG	YUG	HNG
43	392,1250	382,1250	HNG	YUG	YUG	YUG	YUG	HRV
44	392,1750	382,1750	ROU	YUG	YUG	HRV	HRV	HRV
45	392,2250	382,2250	HNG	YUG	YUG	YUG	YUG	HNG
46	392,2750	382,2750	HNG	HNG	HNG	HNG	YUG	HNG
47	392,3250	382,3250	ROU	YUG	YUG	YUG	YUG	HNG
48	392,3750	382,3750	HNG	YUG	YUG	HRV	HRV	HRV
49	392,4250	382,4250	HNG	HNG	HNG	HNG	HRV	HNG
50	392,4750	382,4750	HNG	YUG	YUG	YUG	YUG	HRV
51	392,5250	382,5250	HNG	HNG	HNG	HRV	HRV	HRV
52	392,5750	382,5750	HNG	YUG	YUG	YUG	YUG	HNG
53	392,6250	382,6250	ROU	YUG	YUG	YUG	YUG	HNG
54	392,6750	382,6750	HNG	YUG	YUG	HRV	HRV	HRV
55	392,7250	382,7250	HNG	HNG	HNG	HNG	HRV	HNG
56	392,7750	382,7750	HNG	HNG	HNG	HNG	YUG	HNG
57	392,8250	382,8250	ROU	ROU	YUG	HRV	HRV	HRV
58	392,8750	382,8750	ROU	YUG	YUG	YUG	YUG	HRV
59	392,9250	382,9250	ROU	ROU	HNG	HRV	HRV	HRV
60	392,9750	382,9750	HNG	HNG	HNG	HNG	HRV	HNG
61	393,0250	383,0250	ROU	YUG	YUG	YUG	YUG	HRV
62	393,0750	383,0750	ROU	ROU	YUG	HRV	HRV	HRV
63	393,1250	383,1250	HNG	HNG	HNG	HNG	HRV	HNG
64	393,1750	383,1750	ROU	ROU	HNG	HNG	YUG	HNG
65	393,2250	383,2250	ROU	ROU	HNG	HRV	HRV	HRV
66	393,2750	383,2750	HNG	HNG	HNG	HNG	HRV	HNG
67	393,3250	383,3250	ROU	ROU	YUG	YUG	YUG	HRV
68	393,3750	383,3750	ROU	YUG	YUG	HRV	HRV	HRV
69	393,4250	383,4250	HNG	HNG	HNG	HNG	HRV	HNG
70	393,4750	383,4750	HNG	HNG	HNG	HRV	HRV	HRV
71	393,5250	383,5250	HNG	YUG	YUG	HRV	HRV	HRV
72	393,5750	383,5750	HNG	HNG	HNG	HRV	HRV	HRV
73	393,6250	383,6250	HNG	HNG	HNG	HRV	HRV	HRV
74	393,6750	383,6750	ROU	YUG	YUG	HRV	HRV	HRV
75	393,7250	383,7250	ROU	YUG	YUG	HRV	HRV	HRV
76	393,7750	383,7750	HNG	HNG	HNG	HNG	HRV	HNG
77	393,8250	383,8250	HNG	HNG	HNG	HNG	YUG	HNG
78	393,8750	383,8750	HNG	HNG	HNG	HNG	YUG	HNG
79	393,9250	383,9250	HNG	HNG	HNG	HNG	YUG	HNG
80	393,9750	383,9750	HNG	HNG	HNG	HNG	YUG	HNG

Pécs, 21st March, 2003

Preferential allotment of the frequencies in the band 380-385/390-395MHz

Block	Centre frequency (MHz)	Centre frequency (MHz)	COORDINATION AREAS					
			<u>HNG*</u> <u>ROU</u>	<u>HNG**</u> <u>ROU</u> <u>YUG</u>	<u>HNG</u> <u>YUG</u>	<u>HNG</u> <u>HRV</u> <u>YUG</u>	<u>HRV</u> <u>YUG</u>	<u>HNG*</u> <u>HRV</u>
81	394,0250	384,0250	HNG	HNG	HNG	HNG	YUG	HNG
82	394,0750	384,0750	HNG	HNG	HNG	HNG	YUG	HNG
83	394,1250	384,1250	HNG	HNG	HNG	HNG	YUG	HNG
84	394,1750	384,1750	ROU	ROU	YUG	YUG	YUG	HRV
85	394,2250	384,2250	ROU	ROU	YUG	YUG	YUG	HRV
86	394,2750	384,2750	ROU	ROU	YUG	YUG	YUG	HRV
87	394,3250	384,3250	ROU	ROU	YUG	YUG	YUG	HRV
88	394,3750	384,3750	HNG	HNG	HNG	HNG	YUG	HNG
89	394,4250	384,4250	HNG	HNG	HNG	HNG	YUG	HNG
90	394,4750	384,4750	HNG	HNG	HNG	HNG	YUG	HNG
91	394,5250	384,5250	HNG	HNG	HNG	HNG	HRV	HNG
92	394,5750	384,5750	HNG	HNG	HNG	HNG	HRV	HNG
93	394,6250	384,6250	HNG	HNG	HNG	HNG	HRV	HNG
94	394,6750	384,6750	HNG	HNG	HNG	HRV	HRV	HRV
95	394,7250	384,7250	ROU	YUG	YUG	HRV	HRV	HRV
96	394,7750	384,7750	ROU	ROU	HNG	HRV	HRV	HRV
97	394,8250	384,8250	C/AGA	C/AGA	C/AGA	C/AGA	C/AGA	C/AGA
98	394,8750	384,8750	C/AGA	C/AGA	C/AGA	C/AGA	C/AGA	C/AGA
99	394,9250	384,9250	C/AGA	C/AGA	C/AGA	C/AGA	C/AGA	C/AGA
100	394,9750	384,9750	C/AGA	C/AGA	C/AGA	C/AGA	C/AGA	C/AGA

PREFERENTIAL BLOCKS RELATING TO ADMINISTRATIONS	HNG	46	31	46	31	-	46
	ROU	46	31	-	-	-	-
	YUG	-	31	46	31	46	-
	HRV	-	-	-	31	46	46
	C	8	7	8	7	8	8
	SUM	100	100	100	100	100	100

C - Common blocks
 DMO - Direct Mode Operation
 AGA - Air-Ground-Air
 * existing agreement
 ** proposal