### ARRANGEMENT

between the Telecommunication Administrations of Latvia and Russia concerning the use of the frequency bands

890-915/935-960 MHz for Land Mobile Service of Latvia and Russia and the Aeronautical Radionavigation Service of Russia in the border areas

#### Preamble

According to Article 7 of the Radio Regulations, the representatives of Telecommunications Administrations of Latvia and Russia have concluded the present Arrangement concerning the use of the frequency bands 890-915/935-960 MHz with the purpose of avoiding mutual interference and optimizing the use of the above-stated frequency band on a mutually coordinated basis.

In order to eliminate the possible disagreements the Telecommunications Administrations of Latvia and Russia, if necessary, will be guided by the provisions of the Vienna Agreement (1993) and CEPT Recommendations T/R 20-08 and T/R 25-08, while effecting coordination of the frequency assignments.

Telecommunications Administrations of Latvia and Russia noted an importance of the frequency bands 890-915/935-960 MHz for GSM Systems in the interests of their respective countries. However, the above bands are used for short-range radionavigation and instrument landing systems which are the principal navigation and landing means of Russian aviation.

## 1. Use of Frequencies without coordination

GSM (P- GSM 900) channel numbering in accordance with ETS 300 577 is presented in Appendix 1.

The preferential frequency bands will be allocated between the Telecommunications Administrations of Latvia and Russia as follows:

1.1 Russia may use GSM channels 1-29, 60-71 and 99-119 without coordination with Latvia, if the field strength of every single carrier produced by the base station does not exceed 26 dBµV/m at distance of 30 km inland the Latvian territory.

1.2 Latvia may use GSM channels 30-59, 72-98 and 120-124 without coordination with Russia, if the field strength of every single carrier produced by the base station does not exceed  $26 \text{ dB}_{\mu}\text{V/m}$  at distance of 30 km inland the Russian territory.

Allocation of preferential GSM channels between Latvia and Russia is presented in Appendix 2.

The non-preferential frequency bands will be allocated between the Telecommunications Administrations of Latvia and Russia as follows:

- 1.3 Russia may use GSM channels 30-59, 72-98 and 120-124 channels without coordination with Latvia, if the field strength of every single carrier produced by the base station does not exceed 26  $dB\mu V/m$  at the border line between Latvia and Russia.
- 1.4 Latvia may use GSM channels 1-29, 60-71 and 99-119 without coordination with Russia, if the field strength of every single carrier produced by the base station does not exceed 26 dBµV/m at the border line between Latvia and Russia.
- 1.5 The Telecommunications Administrations of Latvia and Russia shall inform the neighbouring country before bringing into use of any frequency assignment on non-preferential channels at a distance of 30 km to the state border using the Appendix. 3.

The above mentioned field strength values are based on the following: height of antenna 10m, 10 % of time, 50 % of locations. The methods of calculations shall be based on Recommendation ITU-R Rec.370.

#### 2. General

- 2.1 If the field strength value exceeds the levels mentioned in Section 1 coordination shall be effected with the other country.
- 2.2 The technical characteristics to be presented for coordination of a frequency assignment are shown in Annex. 4 (Vienna, 1993).

- 2.3 The period of coordination shall not exceed 65 days from the date of the receipt of the request by fax and 20 days after the reminder. If no reply is received after 85 days the frequency assignment shall be considered as coordinated.
- 2.4 Preliminary agreeing may take place between the GSM operators concerned. The results of such preliminary agreeing between operators must be approved by the Administrations.
- 2.5 In the presence of interference the claims shall be showed in accordance with Appendix 23 of the Radio Regulations. The Telecommunications Administrations of Latvia and Russia shall take all possible measures in order to eliminate the interference. If the cause of the interference is the use by operators of both Parties in the same region of the initial and final channels in the preferential frequency blocks (adjacent channel interference), such interference shall be eliminated by a mutual agreement between GSM operators. In case the operators are unable to reach an agreement this problem shall be resolved by the Administrations.
- 2.6 In case of mutual interference between GSM stations(Latvia) and aeronautical radionavigation stations (Russia) the Parties commit to compensate each other for the equivalent number of affected GSM channels. In doing so the Telecommunication Administration of Latvia has the right to select new channels so that they can be used in the radio network of the operator whose channels were affected.

# 3. Revision of the Arrangement

- 3.1 The present Arrangement can be extended, complemented or revised at any time on the initiative of any Telecommunication Administration with the agreement of the other Administration.
- 3.2. This Arrangement can be cancelled by a mutual decision of both Telecommunication Administrations or by a decision of one Telecommunication Administration subject to a six month notice to the other Administration.

3.3. In the case this Arrangement is cancelled coordination shall be effected on the basis of Recommendation CEPT T/R 20-08.

## 4. Coming into force

The present Arrangement inures one month from the moment of the signing of it by both Telecommunication Administrations.

The present Arrangement has been drawn up in English language in two copies:

One copy for Latvia One copy for Russia

Moscow

5 March 1999

For the Administration of Latvia

For the Administration of Russia:

# Frequency grid of the 890-915/935-960 MHz with the 200 kHz for GSM system

Number	Mobil station	Base station	Number	Mobil station	Base station
of	transmission	transmission	of	transmission	transmissio
channel	frequency,	frequency,	channel	frequency,	n
	MHz	MHz		MHz	frequency,
					MHz
1	2	3	4	5	6
1	890.200	935.200	31	896.200	941.200
2	890.400	935.400	32	896.400	941.400
3	890.600	935.600	33	896.600	941.600
4	890.800	935.800	34	896.800	941.800
5	891.000	936.000	35	897.000	942.000
6	891.200	936.200	36	897.200	942.200
7	891.400	936.400	37	897.400	942.400
8	891.600	936.600	38	897.600	942.600
9	891.800	936.800	39	897.800	942.800
10	892.000	937.000	40	898.000	943.000
11	892.200	937.200	41	898.200	943.200
12	892.400	937.400	42	898.400	943.400
13	892.600	937.600	43	898.600	943.600
14	892.800	937.800	44	898.800	943.800
15	893.000	938.000	45	899.000	944.000
16	893.200	938.200	46	899.200	944.200
17	893.400	938.400	47	899.400	944.400
18	893.600	938.600	48	899.600	944.600
19	893.800	938.800	49	899.800	944.800
20	894.000	939.000	50	900.000	945.000
21	894.200	939.200	51	900.200	945.200
22	894.400	939.400	52	900.400	945.400
23	894.600	939.600	53	900.600	945.600
24	894.800	939.800	54	900.800	945.800
25	895.000	940.000	55	901.000	946.000
26	895.200	940.200	56	901.200	946.200
27	895.400	940.400	57	901.400	946.400
28	895.600	940.600	58	901.600	946.600
29	895.800	940.800	59	901.800	946.800
30	896.000	941.000	60	902.000	947.000

1	2	3	4	5	6
61	902.200	947.200	91	908.200	953.200
62	902.400	947.400	92	908.400	953.400
63	902.600	947.600	93	908.600	953.600
64	902.800	947.800	94	908,800	953.800
65	903.000	948.000	95	909.000	954.000
66	903.200	948.200	96	909.200	954.200
67	903.400	948.400	97	909.400	954.400
68	903.600	948.600	98	909.600	954.600
69	903.800	948.800	99	909.800	954.800
70	904.000	949.000	100	910.000	955.000
71	904.200	949.200	101	910.200	955.200
72	904.400	949.400	102	910.400	955.400
73	904.600	949.600	103	910.600	955.600
74	904.800	949.800	104	910.800	955.800
75	905.000	950.000	105	911.000	956.000
76	905.200	950.200	106	911.200	956.200
77	905.400	950.400	107	911.400	956.400
78	905.600	950.600	108	911.600	956.600
79	905.800	950.800	109	911.800	956.800
80	906.000	951.000	110	912.000	957.000
81	906.200	951.200	111	912.200	957.200
82	906.400	951.400	112	912.400	957.400
83	906.600	951.600	113	912.600	957.600
84	906.800	951.800	114	912.800	957.800
85	907.000	952.000	115	913.000	958.000
86	907.200	952.200	116	913.200	958.200
87	907.400	952.400	117	913.400	958.400
88	907.600	952.600	118	913.600	958.600
89	907.800	952.800	119	913.800	958.800
90	908.000	953.000	120	914.000	959.000
			121	914.200	959.200
			122	914.400	959.400
			123	914.600	959.600
			124	914.800	959.800

# Allocation of preferential radio channels in the frequency bands 890.0-915.0/935.0-960.0 MHz between Telecommunication Administrations of Latvia and Russia

RUS(29)	LVA(30)	RUS(12)	71 98 LVA(27)	119 RUS(21)	124 LVA(5)
1		60	72 99		120

LVA - 62 radio channels

RUS - 62 radio channels