RTR

Ministero dello Sviluppo Economico

Coordination Agreement between the Administrations of Italy and Austria regarding broadcasting assignments in the band 174 to 230 MHz

The undersigned Administrations,

Agree on a specific T-DAB and DVB-T block and channel distribution in the VHF band III from 174 to 230 MHz along the common border, taking into account the topographical decoupling of the mountains.

Considering, that in band III 32 T-DAB blocks from 5A to 12D are available, whereas 4 contiguous blocks from A to D can form a DVB-T channel, shall be distributed in an equal manner between both Administrations.

Considering, that the mountains between Austria and Italy have a strong decoupling effect, which can be used for efficient frequency planning.

Considering, that a coordination zone includes transmitter sites, which affect the populated regions of the coverage areas of the neighbouring country.

Considering, that the transmitter sites outside the coordination zones have no influence into the populated regions of the coverage areas of the neighbouring country.

Considering, that the effective coverage area of the specific transmitter sites are not high altitude areas in the mountains.

Considering, that a limited number of transmitter sites belong to the coordination zones, which have influence regarding potential interference to the territory of the neighbouring country.

Considering, that there are 4 *bilateral coordination zones* between Austria and Italy. These zones are defined:

Zone A: Bolzano West / North Tyrol West

Zone B: Bolzano Middle / North Tyrol East

Zone C: Bolzano East / East Tyrol

Zone D: Udine North / Carinthia West

Undertake with respect to facilitate the evolvement of terrestrial digital radio and terrestrial digital TV in the band 174 to 230 MHz, taking into account that the distribution of the T-DAB blocks in ANNEX 1 in the four different bilateral coordination zones is based on the allotment Plan of the original GE06 agreement and on the basis of the existing and planned transmitters on both sides of the border at the time, when this agreement is set up, these four different coordination zones are limited to the coverage area of the transmitters reported in the ANNEX 2:

1. Divide the available 32 frequency blocks (5A to 12D) in the *limited coordination zones* in an equal manner, taking into account the distribution of blocks and channels in Switzerland and in Slovenia according to GE06 at their respective

borders. The distribution of the specific blocks and channels are listed in the table in ANNEX 1. The results are based on the existing and planned transmitters using the calculation method in paragraph 4 and 5.

2. All the parameters of the existing and planned VHF broadcasting transmitters in the GE06 coordination zone were exchanged during the preparation of the agreement and on the base of the technical criteria in paragraph 4 and 5 the transmitters in ANNEX 2 were assigned to the respective *limited coordination zones*.

3. New transmitters on existing sites or new transmitter sites, which might be made accessible in the future, after the agreement is in force, will be assessed, if they are part of the *limited coordination zone* or not.

4. If the propagation calculation shows interfering field strength, which is higher than the threshold field strength, as defined in paragraph 5 in 10 m height in the coverage area of the neighbouring country, than the new site is normally part of the respective *limited coordination zone*. In special cases, more details like C/N, antenna discrimination, polarisation discrimination an measurement results can be taken into account, when assessing if the transmitter is part of the *limited coordination zone* or not.

5. The threshold interfering field strength for the service areas of any co-channel assignment is calculated.

   for T-DAB interfered by T-DAB
   39 dB(µV/m)+30*log(f/200) [1],

   for T-DAB interfered by DVB-T
   45 dB(µV/m)+30*log(f/200) [1],

   for DVB-T interfered by T-DAB
   39.6 dB(µV/m)+30*log(f/200) [1]

   [1] f is the center frequency of each VHF frequency block or channel as appropriate expressed in MHz.

6. If the operation of stations, although carefully assessed in accordance with paragraph 3 and 4 of this Agreement, results in an unacceptable interference to the other Administration, the Administration, which brought the station causing interference into operation, shall, in cooperation with the affected administration, take the necessary actions to eliminate the interference.

Calculations method

The field strength prediction model to be used to calculate the field strength can be ITU-R P.1812 time probability between 1% and up to 10% of time, or ITU-R P.526-12 or other

prediction models, which take into account the terrain profile between transmitter and receiver.

Protected Coverage area

The coverage area, which has to be protected, is the area where the audience is living (populated areas). Areas above 2100 MSL or areas with less than 200 inhabitants are normally not considered in the evaluation of interfering field strength.

Review of the Agreement

This Agreement may be modified with the consent of the other administration, at the request of one of the signatory administration where such a modification becomes necessary in the light of administrative, regulatory or technical developments.

Each administration informs the other administration about new planned or implemented transmitters in the GE06 coordination zone by providing the technical parameters in ITU Format.

Whether new planned and implemented transmitters in the GE06 coordination zone, according to the technical criteria in paragraph 4 and 5, creates an unacceptable interference to the other administration, these transmitters will be considered as added into the ANNEX 2 and they will use the frequencies for each country according to the list of channels in the ANNEX 1.

Language of the Agreement

This agreement exists in original version in English. Each administration has one original copy.

Entry into force

This agreement will enter into force upon the signature of two parties.

Done in Rome, on 11th October 2018

For the Administration of Austria

Peter Reindl

Austrian Regulatory Authority for Broadcasting

For the Administration of Italy

D.ssa Eva Spina

D.G. Pianificazione Gestione Spettro Radioelettrico

ANNEX 1

Region		5 A	5 B	5 C	5 D	6 A	6 B	6 C	6 D	7 A	7 B	7 C	7 D	8 A	8 B	8 C	8 D	9 A	9 B	9 C	9 D	10 A	10 B	10 C	10 D	11 A	11 B	11 C	11 D	12 A	12 B	12 C	12 D	
Zona A	**Switzerland (GE06)**									1	1	1	1					1											1				1	7
	Austria – North Tyrol West	1	1	1	1	1	1	1	1										1	1	1					1						1		13
	Italy – Bolzano West													1	1	1	1					1	1	1	1		1	1		1	1			12
Zona B	Austria – North Tyrol East		1		1	1	1		1		1		1	1	1	1	1									1	1	1				1	1	16
	Italy – Bolzano Middle	1		1				1		1		1						1	1	1	1	1	1	1	1				1	1	1			16
Zona C	Austria – East Tyrol	1	1	1	1		1		1	1	1		1		1		1									1	1	1				1	1	16
	Italy – Bolzano East					1		1				1		1		1		1	1	1	1	1	1	1	1				1	1	1			16
Zona D	Austria – Carinthia West					1	1	1	1		1											1	1	1			1	1	1				1	12
	Italy – Udine North											1	1	1	1	1	1	1	1	1	1					1				1	1			13
	Slovenia (GE06)	1	1	1	1					1															1							1		7

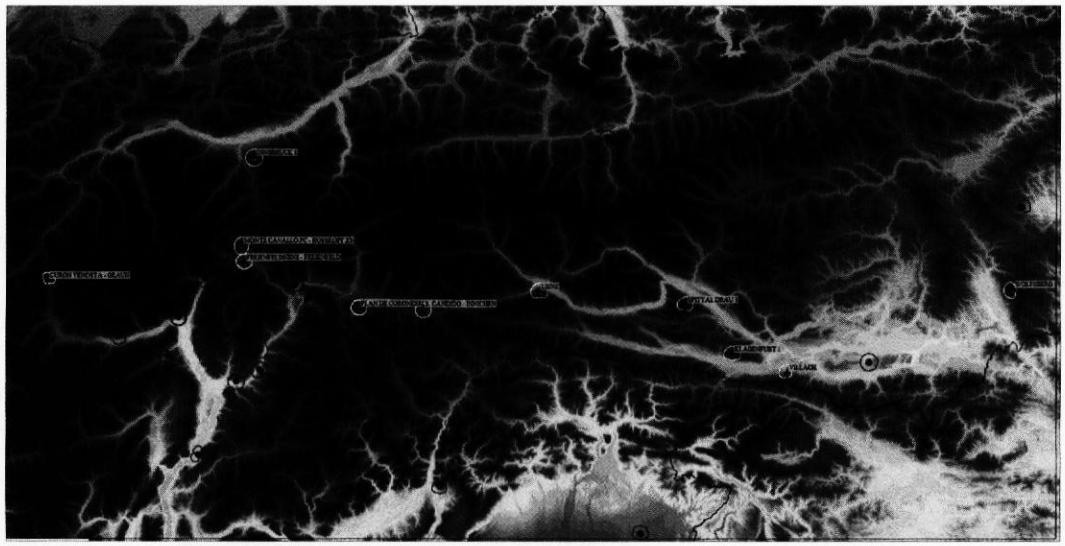
Fixed positions in the resp. Country (GE06+) ...

exchange for a frequency balance ...

ANNEX 2

T-DAB

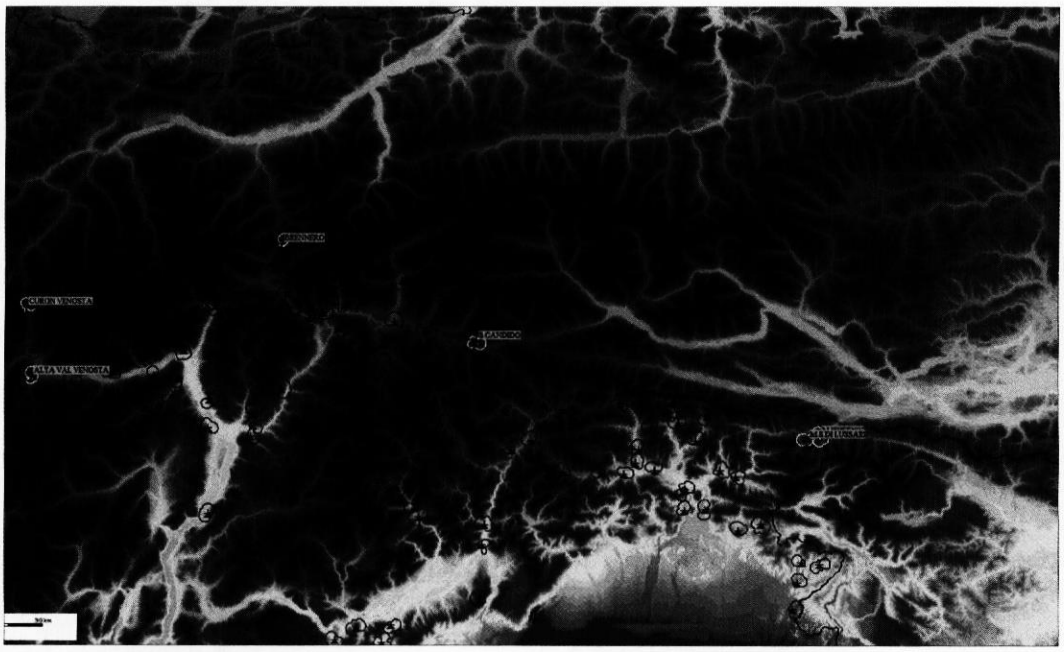
Zone A, B, C and D



T-DAB transmitters in the map, which are part of the limited coordination zone are depicted in the yellow colour. The contours around the transmitters on the map show the antenna diagram in a simplified manner.

DVB-T

Zone A, B, C and D



Transmitters in the map, which are part of the *limited coordination zone* are depicted in the yellow colour. The contours around the transmitters on the map show the antenna diagram in a simplified manner.

List of transmitters, which are part of the limited coordination zones:

Servicetype	Adm.	TX-Name	ERP [dBW]	Longit.	Latit.	Zone
DVB-T	I	ALTA VAL VENOSTA	17	010E33 01.000	46N36 58.000	A
DVB-T	I	CURON VENOSTA	9	010E31 26.000	46N47 59.000	A
T-DAB	I	CURON VENOSTA - GRAUN	24	010E31 27.000	46N47 59.000	A
T-DAB	AUT	INNSBRUCK 1	40	011E27 44.000	47N12 31.000	B
DVB-T	I	BRENNERO	8	011E29 56.000	46N59 23.000	B
T-DAB	I	CAMPO DI TRENS - FREIENFELD	27	011E25 37.000	46N52 33.000	B
T-DAB	I	CAMPO TRENS	25	011E25 37.000	46N52 34.000	B
T-DAB	I	FREIENFELD	29	011E25 38.000	46N52 31.000	B
T-DAB	I	MONTE CAVALLO PC - ROSSKOPF ZS	23	011E24 48.000	46N55 44.000	B
T-DAB	AUT	LIENZ	33	012E46 59.000	46N47 57.000	C
T-DAB	I	CORONES	28	011E57 36.000	46N44 26.000	C
T-DAB	I	PLAN CORONES - KRONPLATZ	27	011E57 30.000	46N44 20.000	C
T-DAB	I	PLAN DE CORONES	32	011E57 33.000	46N44 20.000	C
T-DAB	I	S. CANDIDO - INNICHEN	24	012E15 14.000	46N44 29.000	C
DVB-T	I	S.CANDIDO	10	012E15 13.000	46N44 29.000	C
T-DAB	AUT	KLAGENFURT 1	40	013E40 22.000	46N36 12.000	D
T-DAB	AUT	SPITTAL DRAU 1	35	013E27 29.000	46N45 32.000	D
T-DAB	AUT	VILLACH	33	013E55 28.000	46N32 41.000	D
T-DAB	AUT	WOLFSBERG 1	34	014E57 29.000	46N47 40.000	D
DVB-T	I	M.PRIESNIG	12	013E34 05.000	46N29 38.000	D
DVB-T	I	M.S.DI LUSSARI	12	013E31 14.000	46N28 58.000	D