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Bundesamt für Kommunikation BAKOM Office fédéral de la communication OFCOM Ufficio federale delle comunicazioni UFCOM Uffizi federal da communicaziun UFCOM

Coordination Agreement between the Administrations of Italy and Switzerland regarding a terrestrial frequency DVB-T and T-DAB Plan in the VHF band

The undersigned Administrations,

Agree on a specific TV and DAB channels distribution in the VHF band along the common border, taking into account the topographical decoupling of the mountainous areas.

Background: The GE06 Agreement allocates the VHF band for TV and DAB services.

In Switzerland the VHF band is allocated to broadcasting using only T-DAB according to the National Frequency Allocation Table.

In Italy the VHF band is allocated for DVB-T and T-DAB according to the National Frequency Allocation Table.

Considering that this band shall be distributed on the basis of equitable access between both Administrations.

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

Considering that a coordination zone includes transmitter sites affecting 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 depending on the technical parameters.

Coordination zone

The GE06 buffer zone (Annex 1) will be used. The allotments Wallis, Valais and Valle d'Aosta, Wallis-Piemonte and also Graubuenden-West Bozen are considered as fully compatible. Into the allotment Muenstertal-West Bozen the coordination zone is limited to the coverage areas of the following respective existing transmitters: S Maria i.M. Crappetta, Malles Venosta and Alta Val Venosta

Into the allotment of Ticino-Piemonte Lombardia, Sondrio-Poschiavo and Muenstertal-West Bozen (limited to the coverage areas of the transmitter sites of S. Maria i.M. Crappetta, Malles Venosta and Alta Val Venosta) the available channels (ch.5 to ch.12) are distributed to Italy and Switzerland, in the coordination zone, as indicated in Annex 2.

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The following coordination rules shall be used in order to minimize the administrative burden to apply the ITU-R rules for both Administrations:

- a.) Existing transmitter sites outside the coordination zone may be notified in the updated GE06 Plan with any channel and without any need of additional agreement, as long as the defined threshold is not exceeded, according to the criteria indicated in the "Calculation method" section.
- b.) Existing transmitter sites inside the coordination zone which fulfil the criteria according to "Calculations method" may be notified in the updated GE06 Plan with any of the channels according to the table of the channel distribution in Annex 2 without any need of additional agreement.

For new transmitter sites or modification of the technical parameters outside the coordination zone point a.) has to be applied.

New transmitter sites or modification of the technical parameters inside the coordination zone can be treated according to *point b.*).

If the operation of a transmitter, although made in accordance with the provisions of this Agreement, results in unacceptable interference to the other Administration (affected Administration), the interfering Administration shall, in cooperation with the affected Administration, immediately take the necessary actions to eliminate the interference.

Calculations method.

The field strength prediction model to be used is ITU-R 1812 or the IRT-2D. The interfering field strength calculation refers to 1% of time. The admissible protection ratio, the antenna discrimination and a threshold for T-DAB interfered by T-DAB is $39dB(\mu V/m)+30*log(f/200)^1$, for T-DAB interfered by DVB-T is $45dB(\mu V/m)+30*log(f/200)^1$, for DVB-T interfered by T-DAB is $39.6dB(\mu V/m)+30*log(f/200)^1$ on test points inside the service areas of any co-channel assignment shall be applied. Areas above 2100 MSL or areas with less than 200 inhabitants are not considered in the evaluation of interfering field strength.

Review of the Agreement

With the consent of the other Administration, this Agreement may be modified at the request of one of the signatory Administrations where such a modification becomes necessary in the light of administrative, regulatory or technical developments. Each of the signatory Administrations cannot withdraw unilaterally from this Agreement.

Language of the Agreement

This Agreement exists in two original versions in English. Each Administration has one of the versions.

Entry into force

This Agreement will enter into force on the date of signature.

Done at Milan on 4th of May 2018

¹ f is the center frequency of each VHF channel expressed in MHz

For the Administration of Italy

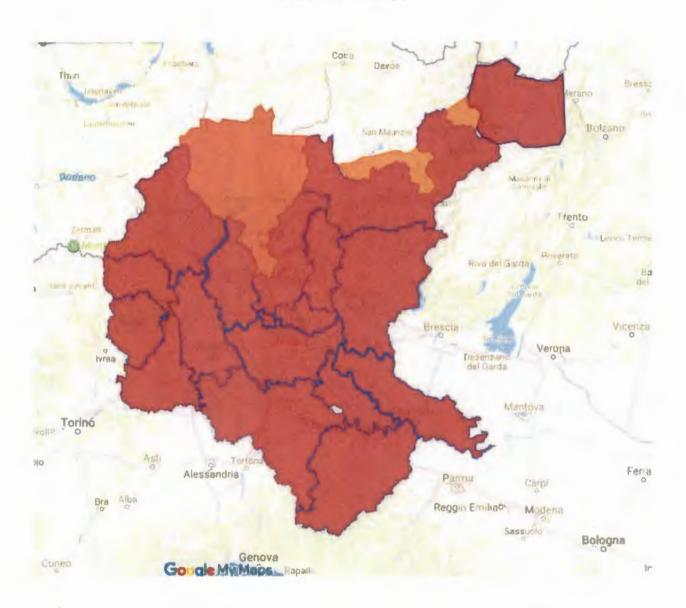
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Management Division

ANNEX 1 Coordination Zone (*)



(*) In case an allotment extends beyond the national border, the protected areas comprise only the national territory of the affected Administration.

Annex 2
Channel distribution Italy-Switzerland

Ch	Italy ¹	Switzerland	Italy	Switzerland	Italy	SUI	SUI
blocks		Ticino	Sondrio	Poschiavo	Bz W	Muenstertal	Graubuender
5A	DVBT		DVBT		DAB		
5B	DVBT		DVBT		DAB		
5C	DVBT		DVBT		DAB		
5D	DVBT		DVBT		DAB		
6A		DAB		DVBT		DVBT	
6B		DAB		DVBT		DVBT	
6C		DAB		DVBT		DVBT	
6D		DAB		DVBT		DVBT	
7A	DVBT			DVBT		DVBT	DVBT
7B	DVBT			DVBT		DVBT	DVBT
7C	DVBT			DVBT		DVBT	DVBT
7D	DVBT			DVBT		DVBT	DVBT
8A		DVBT			DVBT		
8B		DVBT			DVBT		
8C		DVBT			DVBT		
8D		DVBT			DVBT		
9A	DVBT		DVBT			DAB	DAB
9B	DVBT		DVBT			DAB	
9C	DVBT		DVBT			DAB	
9D	DVBT		DVBT			DAB	
10A		DAB		DAB	DVBT		
10B		DAB		DAB	DVBT		
10C		DAB		DAB	DVBT		·
10D		DAB		DAB	DVBT		
11A	DAB		DAB			DAB	
11B	DAB		DAB		DAB		
11C	DAB			DAB	DAB		
11D	DAB			DAB		DAB	DAB
12A		DAB		DAB	DAB		
12B	DAB		DAB		DAB		
12C	DAB		DAB			DAB	
12D		DAB		DAB		DAB	DAB
SEO6 plus	new agreed						

⁽¹⁾ Includes the following administrative provinces: Verbania-Cusio-Ossola, Vercelli, Biella, Novara, Varese, Como, Lecco, Milano, Lodi, Monza-Brianza, Pavia, Cremona, Bergamo, Piacenza

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