

# ITU regulations on notification, coordination and registration of digital broadcasting networks.

**ITU BDT Seminar**  
**Transition from Analogue to Digital Broadcasting: correlation between technical, economic and social costs and advantages»**  
*16 - 18 June 2009, Saransk, Russian Federation*

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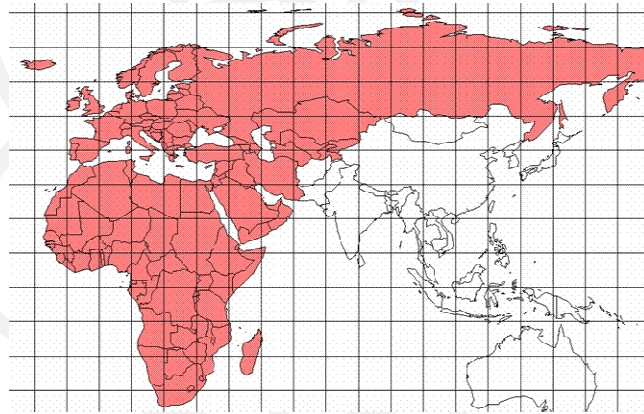
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## GE06 Agreement

- General aspects
- Modification to the Plans
- Notification: Registration in the Master Register
- Coordination

## GE06 Planning Area



## Some general aspects

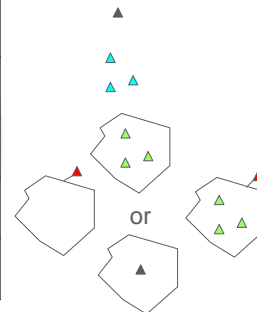
- In force **17 June 2006**
- 174-230 MHz
  - T-DAB and DVB-T
- 470-862 MHz
  - DVB-T
- Assignments and Allotments

## Plans

- GE06D Digital broadcasting Plan
  - T-DAB
  - DVB-T
- GE06A Analogue television Plan
- GE06L The List of Other Primary Service (OPS)

## Digital broadcasting Plan entries

Plan Entry Code	Description
1	One assignment only
2	Single Frequency Network (SFN)
3	One allotment only
4	Allotment with linked assignments and SFN_Ids
5	Allotment with single linked assignment and no SFN identifier



## Digital broadcasting Plan entries

Assignment code	Description
S	Single assignment
L	Linked assignment
C	Converted assignment

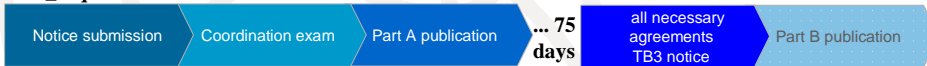
## Modification of the broadcasting Plans

- **Change** characteristics of an allotment or assignment already in the Plans;
- **Add** an allotment or assignment to the Plans;
- **Add an assignment stemming** from an allotment to the digital Plan;
- **Cancel** (suppress) from the Plans an allotment or an assignment.

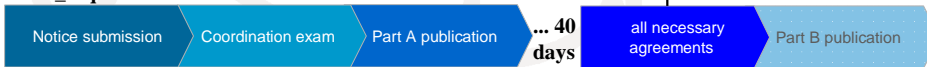
(§ 4.1 of Article 4)

# Article 4 procedures

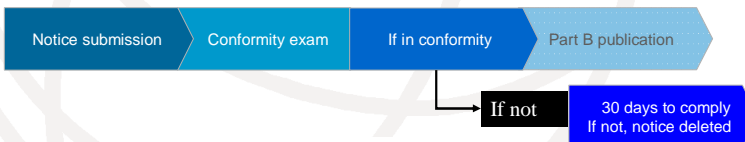
**Normal procedure:**  
Pub\_req=FALSE



**Shortcut procedure:**  
Pub\_req= TRUE



**Converted assignment**



# Coordination examination

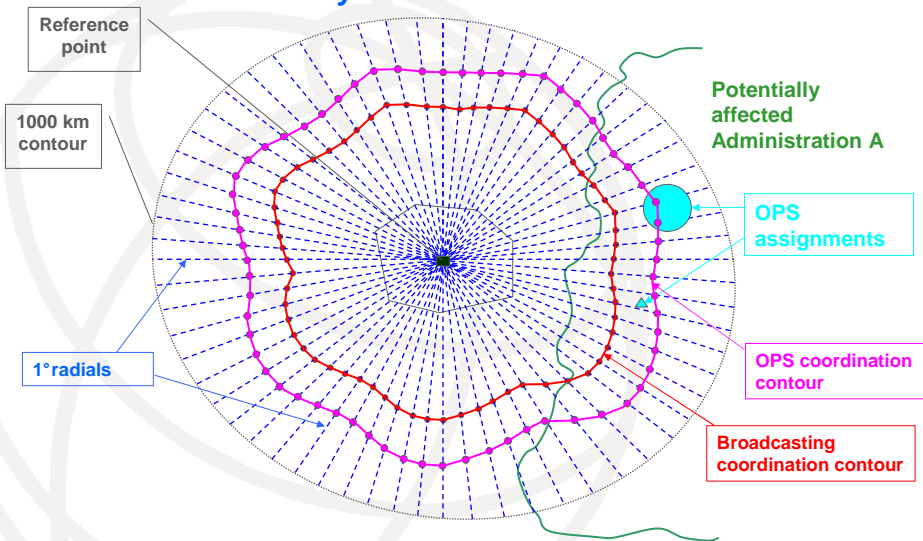
- Section I of appendix 4;
- Define affected administrations:
  - Broadcasting
  - OPS

Service	Boundary, site or service area
BC	National boundaries
OPS	Receiving stations / service areas

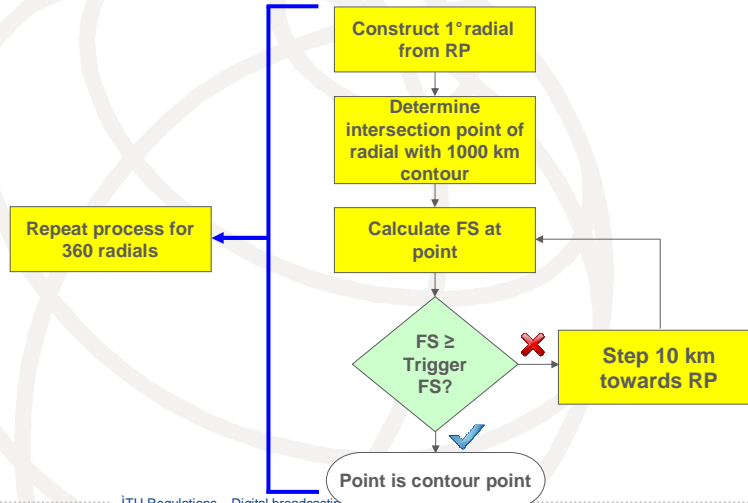
# Trigger field strength

Broadcasting system modifying the Plan	Trigger field strength (dB(μV/m))			
	Band III (174-230 MHz)	Band IV (470-582 MHz)	Band V (582-718 MHz)	Band V (718-862 MHz)
DVB-T	17	21	23	25
T-DAB	12	-	-	-
Analogue TV	10	18	20	22

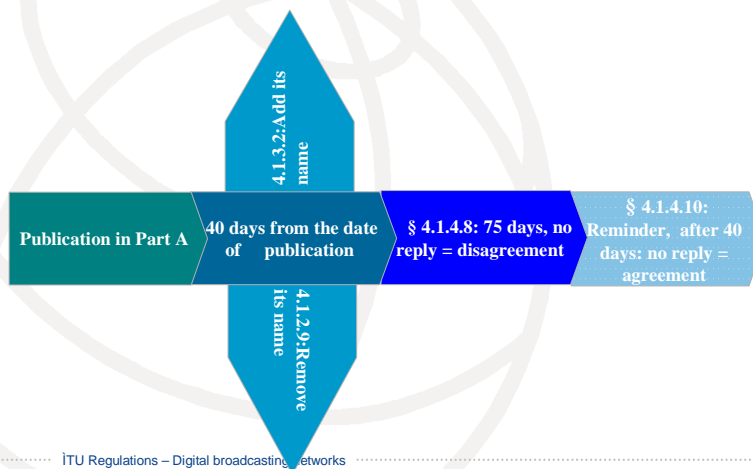
# Identification of administrations potentially affected by modifications to the Plans



## Coordination contours



## Coordination with affected administrations



## Transition period

- The **Transition period** started on **17 June 2006 at 0001 hours UTC**:
  - assignments in the analogue Plan (as specified in § 3.1.2 of Article 3) shall be protected.
- The **Transition period** shall end :
  - on 17 June 2015 at 0001 hours UTC (for UHF bands in all countries; for VHF in all countries except those that opted for 17 June 2020) .
  - on 17 June 2020 at 0001 hours UTC for the some countries (listed in GE06 Agreement)

## Notification procedure

- Administrations submit notices
- Bureau publishes in Part I as **acknowledgement of receipt**
- Bureau **examines** notices
  - Conformity with **Table of Frequency Allocations**
  - **Conformity with Plans**



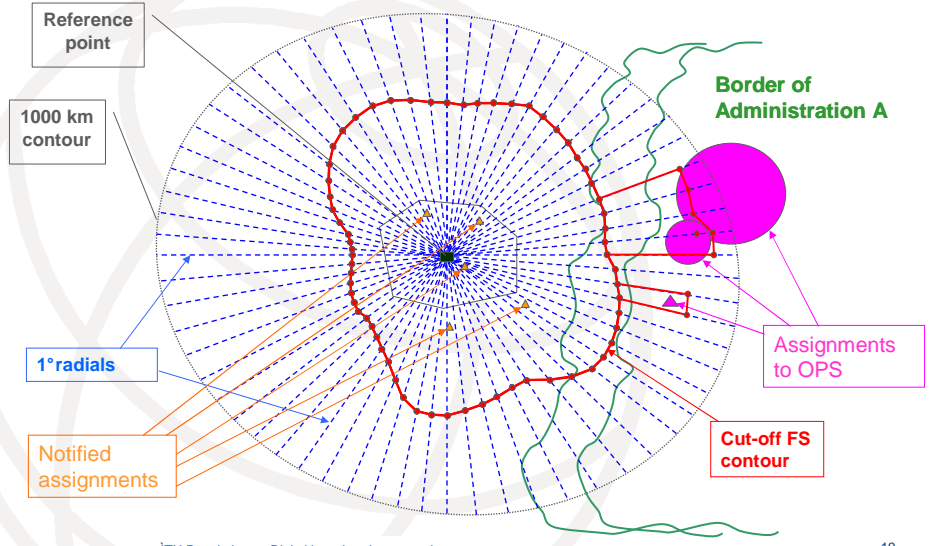
## Notification procedure...

- **Conform > Favourable** finding
  - Publish in Part II
- **Not conform > Unfavourable**
  - Publish in Part III
  - Return notices to Administration

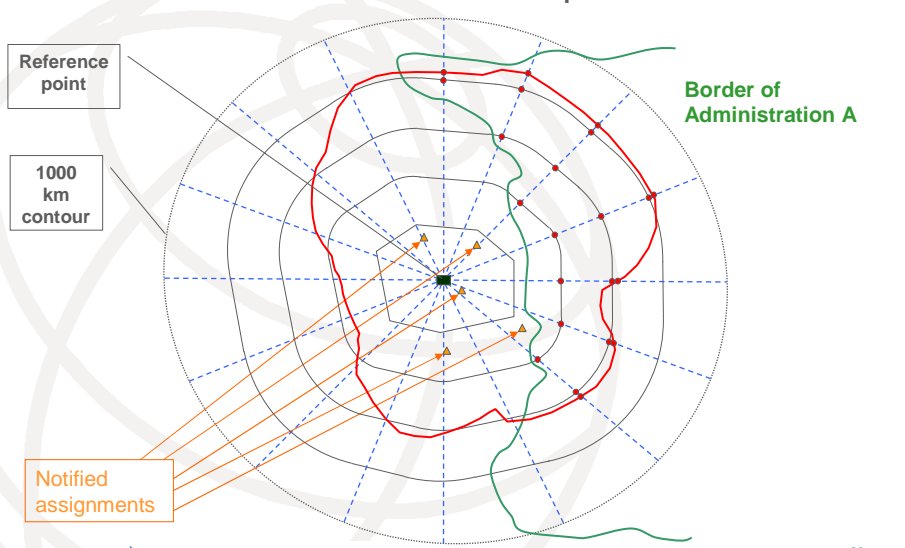
## Conformity examination

- Compare calculated field strengths at test points
  - Plan entry (FS1)
  - Notified assignments (FS2)
- If  $FS2 > FS1$  at any test point, **NOT IN CONFORMITY WITH THE PLAN ENTRY**

### Construction of cut-off FS contours



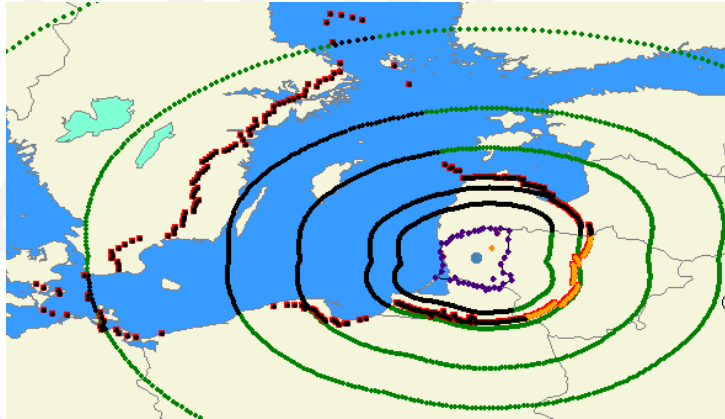
### Construction of calculation points



## Examination of conformity with the Plan entry

Example of conformity results

Allotment with 4L assignments



## Provision 5.1.3

A **digital entry in the Plan** may also be notified with characteristics different from those appearing in the Plan, for transmissions in the broadcasting service or in other primary terrestrial services operating in **conformity with the Radio Regulations**, ...

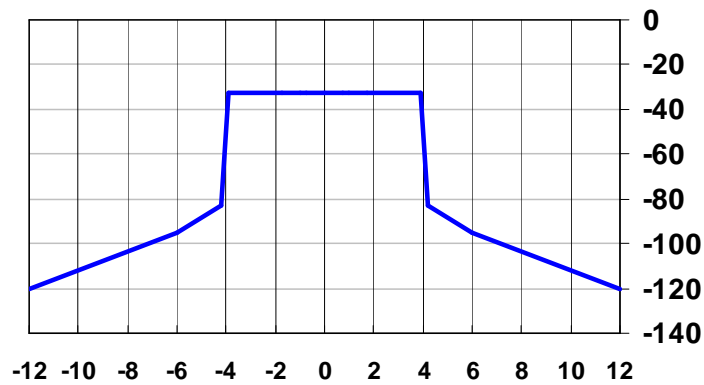
## Provision 5.1.3(cont.)

...provided that the **peak power density in any 4 kHz** of the above-mentioned notified assignments shall not exceed the spectral power density in the same 4 kHz of the digital entry in the Plan.

## Within spectrum envelope

- The “**MASK**” concept
- Does not exceed its “**spectrum right**” as a digital Plan entry
  - **Peak power density** in any 4 kHz
  - **Radiated** peak power

### DVB-T SPECTRUM MASK sensitive cases (8 MHz) power level measured in 4kHz bandwidth



## Conformity to the Plan entry

- To ensure that it does not **cause more interference**
  - Different site location, effective heights
- Criteria in **section II of the Annex 4** of the GE06 Agreement
  - Cut-off contours
  - **Compare field strengths** at all the test points

## No claim for more protection

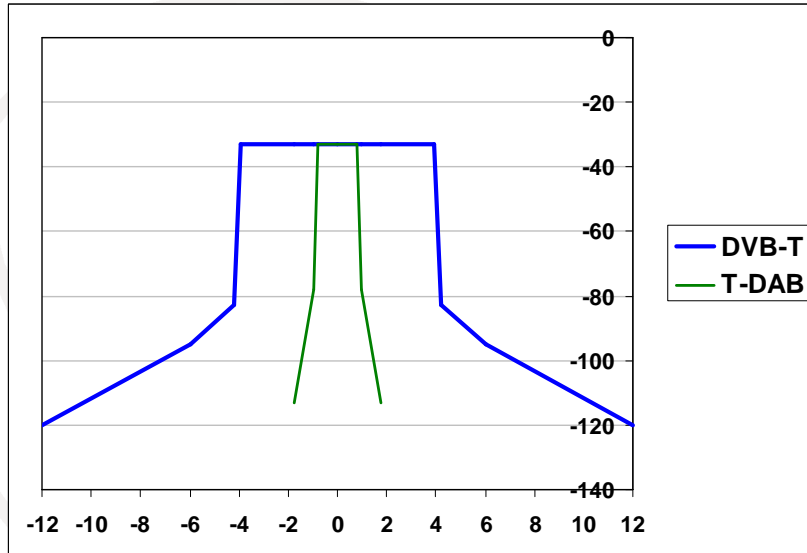
The proposed notified assignment if **successfully recorded in the Master Register (MIFR) with a favourable finding** shall **not claim more protection** than that afforded to the **digital Plan entry**.

## Some examples

- T-DAB using a DVB-T digital entry
- Mobile Television T-DMB using a T-DAB or DVB-T digital entry
- Fixed WiMAX
- IMT-2000 applications

## T-DAB using a DVB-T digital entry

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## Coordination - Further remarks

- Coordinate early
- Coordinate regularly
- Mutual respect
- Good technical bases
  - Identified as affected only the first step
  - Use measurement data

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## Some more remarks

- Don't forget administration outside GE06
  - Establish criteria for coordination

## GE06 is complex!

The Bureau are ready to  
assist!



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**Thank you for your  
attention!**



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