



GE84 Agreement Procedures

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International Telecommunication Union

WORLD
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www.itu.int/go/ITU-R/WRS-14

Organised by:

150 1865 2015

ITU

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The poster features a scenic view of Lake Geneva in Geneva, Switzerland, with a large fountain in the foreground. The background is a clear blue sky with some clouds. The text is overlaid on a red background at the bottom. The ITU logo is prominently displayed in the center, with the words 'WORLD RADIOCOMMUNICATION SEMINAR 2014' below it. The dates 'GENEVA, 8-12 DECEMBER 2014' are also included. At the bottom, there is a QR code, the ITU 150th anniversary logo (1865-2015), and the ITU logo again. The text 'Organised by:' is followed by the ITU logo.

The Geneva 84 Agreement

- relating to the Use of the Band 87.5 - 108 MHz for FM Sound Broadcasting (Region 1 and Part of Region 3)

100kHz channel spacing





GE84 in summary

- **Article 13:**
 - Entry into force on 1 July 1987, at 0001 hours UTC.
 - established for a period of 20 years from the date of entry into force of the Agreement.
 - This Agreement shall remain in force until it is revised by a competent *administrative radio conference*.



The evolution of the Plan

- 1987 : 51 168 frequency assignments
- Now : 75 943 recorded assignments

around 12 000 pending modifications in coordination

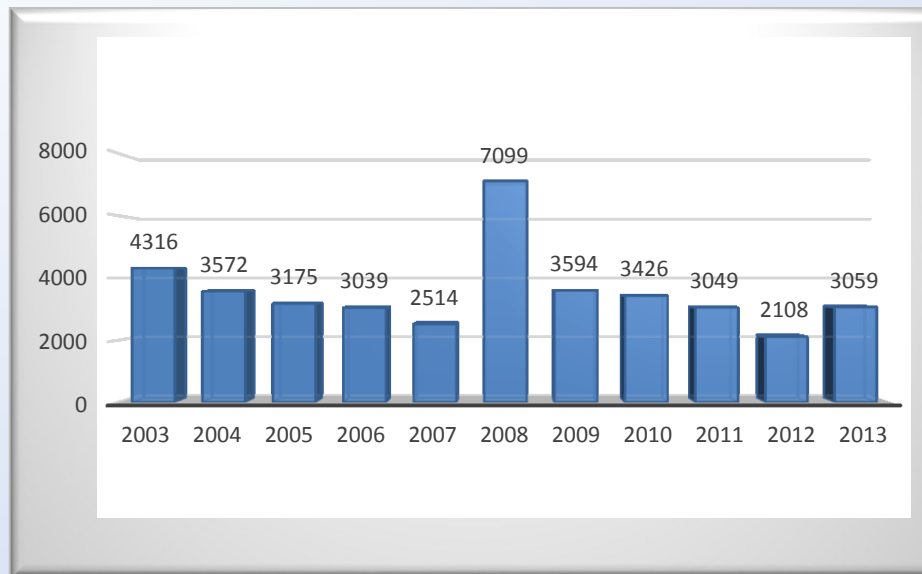




Table of Frequency Allocations

Allocation to services		
Region 1	Region 2	Region 3
75.2-87.5 FIXED MOBILE except aeronautical mobile 5.175 5.179 5.187	75.2-75.4 FIXED MOBILE 5.179	
	75.4-76 FIXED MOBILE	75.4-87 FIXED MOBILE
	76-88 BROADCASTING Fixed Mobile	5.182 5.183 5.188
	87.5-100 BROADCASTING 5.190 100-108	5.185 88-100 BROADCASTING BROADCASTING 5.192 5.194
108-117.975	AERONAUTICAL RADIONAVIGATION 5.197 5.197A	

5.190 *Additional allocation:* in Monaco, the band 87.5-88 MHz is also allocated to the land mobile service on a primary basis, subject to agreement obtained under No. 9.21. (WRC-97)

5.191 Not used.

5.192 *Additional allocation:* in China and Korea (Rep. of), the band 100-108 MHz is also allocated to the fixed and mobile services on a primary basis. (WRC-97)

5.193 Not used.

5.194 *Additional allocation:* in Azerbaijan, Kyrgyzstan, Somalia and Turkmenistan, the band 104-108 MHz is also allocated to the mobile, except aeronautical mobile (R), service on a secondary basis. (WRC-07)



Services likely to be affected (Coordination required)

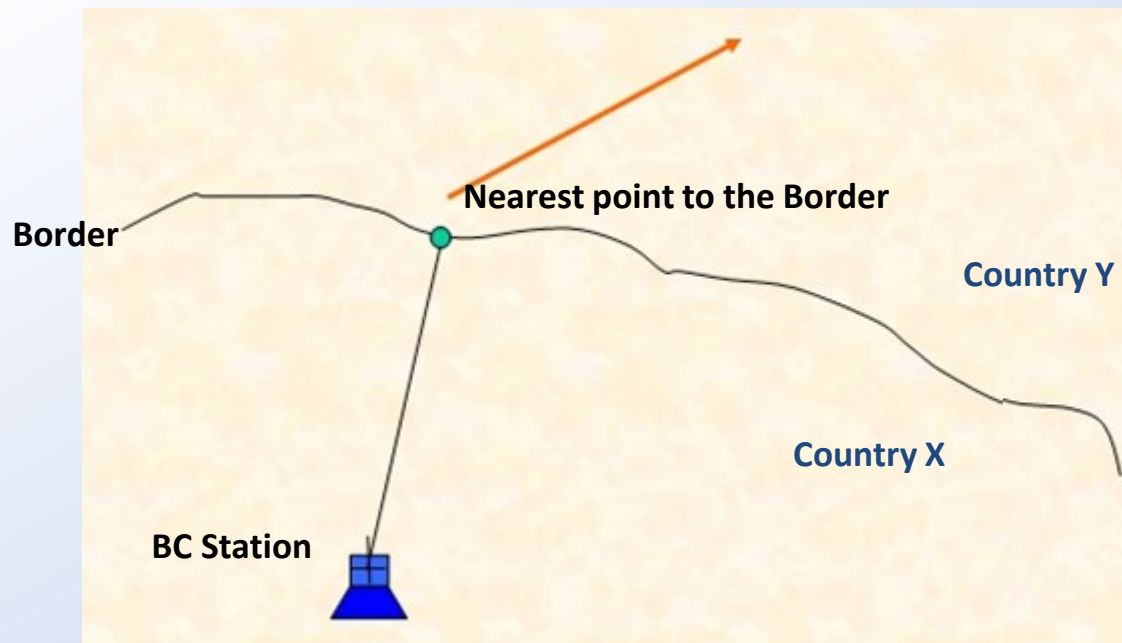
- ✓ Other VHF-FM sound broadcasting stations (4.2.2 a)
- ✓ ST61 television assignments in the band 87.5 – 100 MHz (4.2.2 b)
- ✓ Fixed and mobile services (4.2.2 c, d, e)
- ✓ Aeronautical radionavigation services above 108 MHz (4.2.2 f)

Coordination

with other sound/TV broadcasting services

VHF-FM

- distances between the broadcasting station and the nearest point on the boundary of any other administration shall be used to identify administrations whose sound broadcasting services may be considered as affected





BC to BC/BT coordination distance

- coordination distances depend on:
 - ERP
 - Effective antenna height
 - Propagation Path (land, warm and cold seas and areas of super refractivity)
- See Chapter 1 of Annex 4 of the Agreement:
 - Tables 4.1- 4.4 : limits for sound
 - Tables 4.5 to 4.7: limits for television



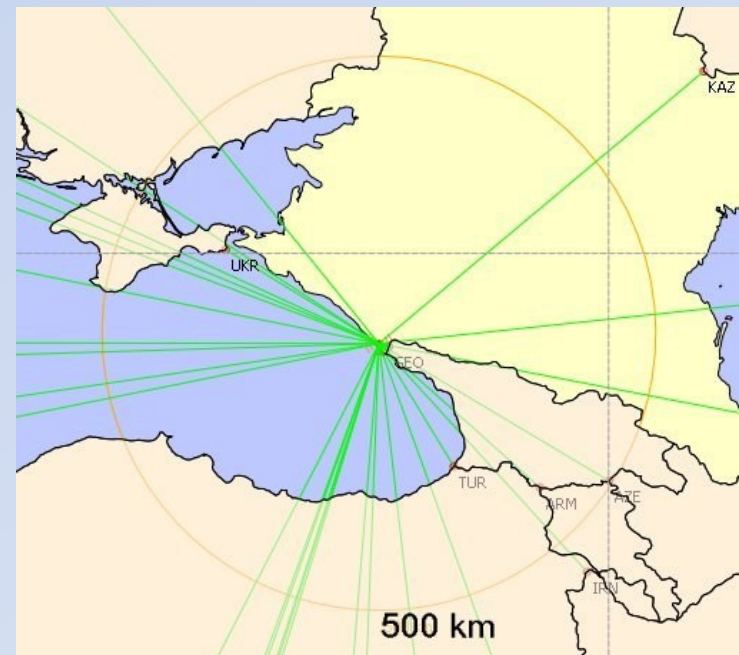
TABLE 4.1

Coordination distances, D_L , in km, for propagation paths over land

Effective radiated power		Effective antenna height (m)							
		10	37.5	75	150	300	600	1200	1800
dBW	W	Coordination distances (km)							
55	300k	520	520	530	540	560	600	630	670
50	100k	460	460	470	490	510	540	580	610
45	30k	410	410	420	430	450	480	520	560
40	10k	350	350	370	380	400	430	470	500
35	3k	300	300	310	330	340	380	420	450
30	1k	250	250	260	270	290	320	360	400
25	300	140	190	210	220	240	280	320	350
20	100	70	140	160	180	190	230	270	300
15	30	45	100	130	140	150	190	230	260
10	10	35	65	90	100	120	150	190	220
5	3	30	45	65	75	95	120	160	180
0	1	20	35	50	60	80	100	140	150

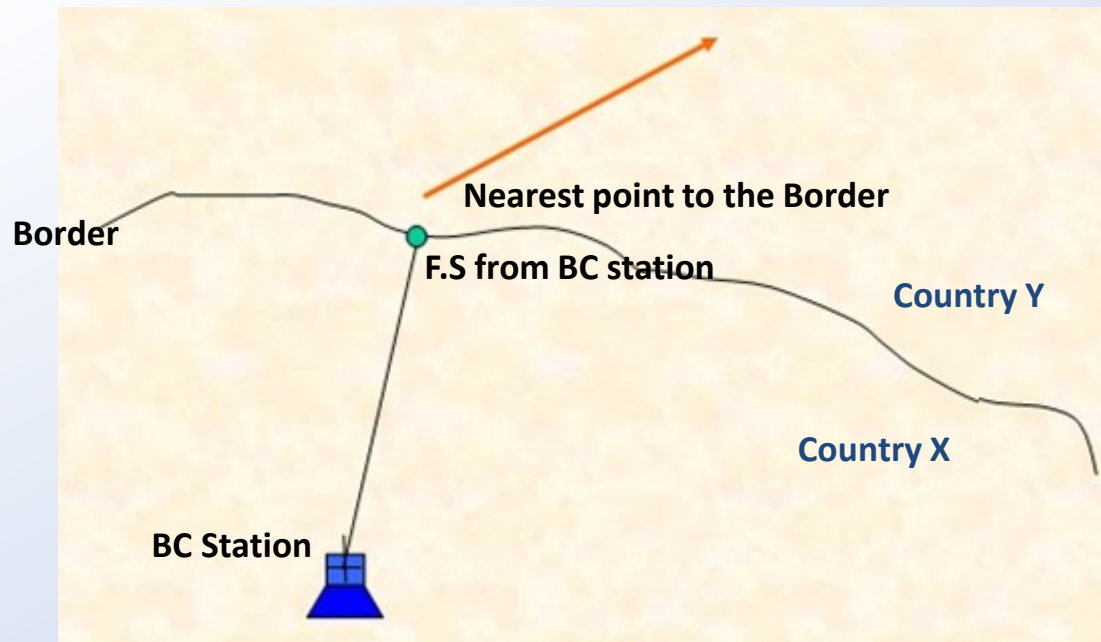
Coordination with Aeronautical Radio Navigation services

- Distance to the nearest point on the boundary < 500 km



Coordination with fixed & mobile services

- Fixed & mobile services are affected if field strength (FS) of BC at the nearest point on the boundary of another administration exceeds a limit





Coordination with Fixed and Mobile services

- Fixed service : **0 dB ($\mu\text{V}/\text{m}$).**
- Land mobile service: limits depend on the polarization.
 - Region 3 (87.5-100 MHz)
 - horizontal polarization: **18 dB($\mu\text{V}/\text{m}$)**
 - vertical or mixed polarization: **0 dB($\mu\text{V}/\text{m}$)**
 - Region 1 Monaco (87.5-88MHz)
 - horizontal polarization: **14 dB($\mu\text{V}/\text{m}$)**
 - vertical or mixed polarization: **6 dB($\mu\text{V}/\text{m}$)**



Resolution 4 of the agreement

non-Contracting Members outside the planning area having *aeronautical radionavigation services (108 - 117.975 MHz)*

- **Limit Chapter 3 Annex 4 applies.**

- Notifying administration:
 - to consult with Adm of non-Contracting Member
 - to resolve any incompatibility, if reported by the non-Contracting Member.

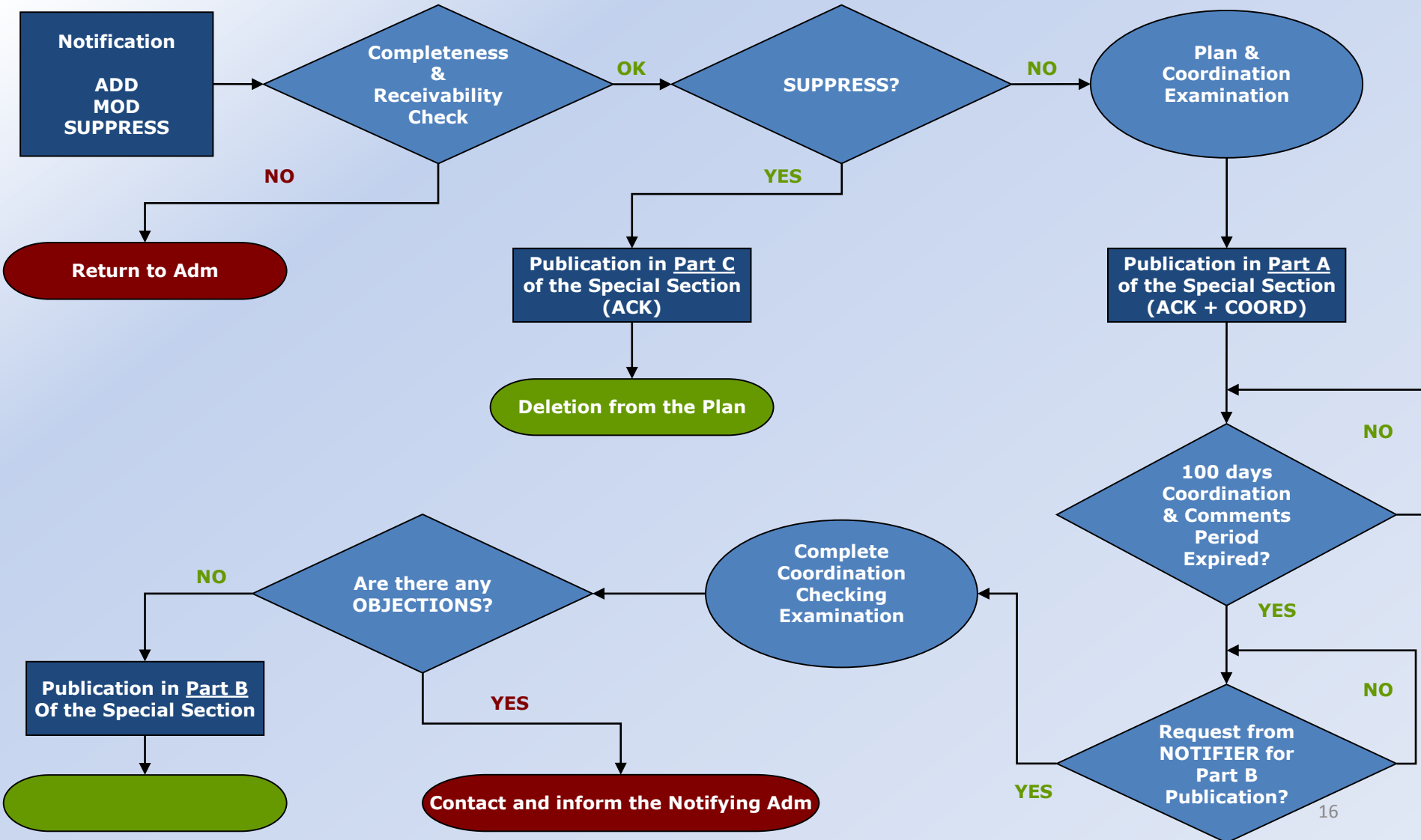


Agreement with Broadcasting station

- Coordination between administrations on the basis of a table of distances (Annex 4)
- Agreement on Plan modification should be accepted if based on the following technical criteria :
 - Resulting $E_u \leq 54$ dBu/m (sound)
 - Resulting $E_u \leq 52$ dBu/m (television)
 - Resulting E_u increase ≤ 0.5 dB relative to the reference E_u (E_{u-ref}).



GE84 Plan modification Procedure





GE84 Plan modification procedure

The modifications to the Plan are published on the BR IFIC in a **Special Section GE84 containing 3 parts:**

Part A: particulars of proposed additions and/or changes (modifications) to the characteristics of recorded assignments published in accordance with paragraph 4.2.7 of Article 4 of the Regional Agreement;

in Part A, we publish the **coordination information**, both as determined by the Bureau’s examinations (COORD REQUIRED) and as stated by the Notifying Administration at notification time (COORD COMPLETED, with source NOTIFIER).

The **date of publication** of the BR IFIC containing the Part A of the Special Section constitutes the **starting date** for the comment/coordination period (100 days)

Part B: particulars of additions and/or changes to the characteristics of recorded assignments on which agreement has been reached, published in accordance with paragraph 4.6.2 of Article 4 of the Regional Agreement

Notices are published in Part B at the end of the 100 day period for comments, **if there are NO OBJECTIONS** and **if the Notifying Administration has requested** the Bureau to do so (TB3) .

Part C: Particulars of assignments/allotments in the Plan which have been **cancelled**, in accordance with paragraph 4.5 of Article 4 of the Regional Agreement.

☒ Coordination Information

Administration	Coordination status	Coordination provision	Source of status	Date of status	Declared affected
CHN	COORD REQUIRED	RES4	ITU	18 Oct 2014	ITU
KAZ	COORD REQUIRED	4.2.2.A	ITU	18 Oct 2014	ITU
KAZ	COORD REQUIRED	4.2.2.F	ITU	18 Oct 2014	ITU
KAZ	COORD COMPLETED	COORD	NOTIFIER	16 Oct 2014	NOTIFIER



Quick Modification Procedure

- No agreement required if modifications involve
 - Less interference – lower ERP
 - Distance to border > coordination limits
 - Small change in site location
 - 15 km ERP \geq 1kW
 - 5 km < 1kW



Plan modification Procedure

- *Notification:*
 - T01 notice form for Addition or Modification to the Plan
 - TB5 notice for Suppression or Withdrawal
- *Coordination:*
 - No comment = AGREEMENT
- *Publication*
 - Must request for publication in Part B (TB3 notice)
 - Publication in Part B only if no objections
- *Important*
 - The frequencies pending in coordination stage are never deleted (11 481 to date)



Assistance from BR (4.3.13)

Administration may request assistance in

- ❖ Seeking agreement from another ADM
- ❖ Applying any stage of the Article 4 procedure
- ❖ Carrying out technical studies in relation to this procedure
- ❖ **GE84PLN** software available at

<http://www.itu.int/en/ITU-R/terrestrial/broadcast/Pages/Services.aspx>



Thank you
for your attention

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