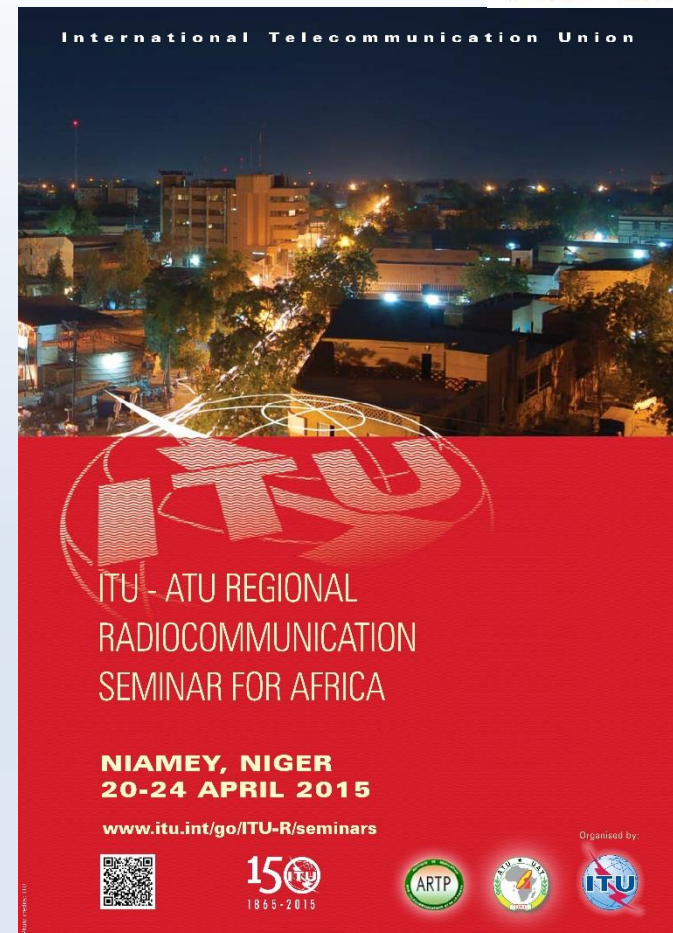


GE84 Agreement Procedures

*Bangaly-Fodé Traore
Radiocommunication Engineer*



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



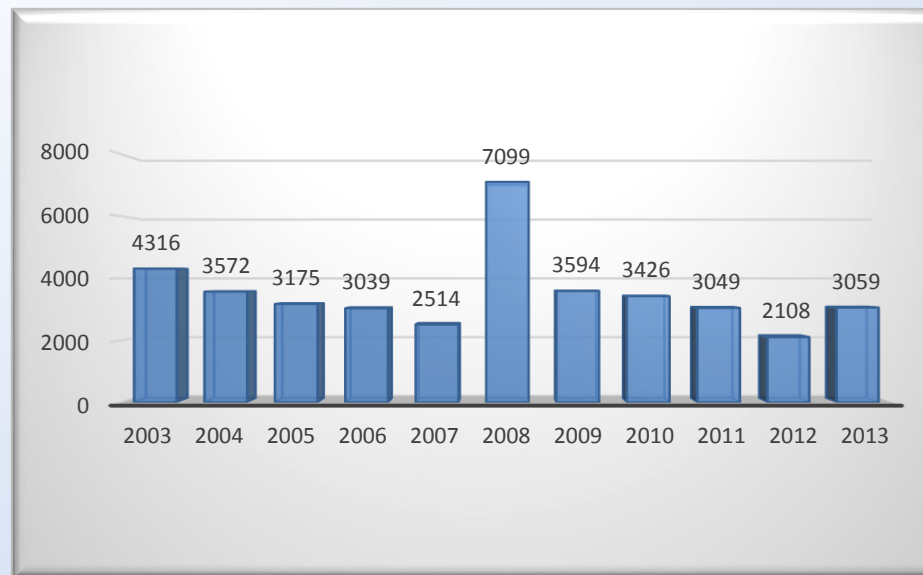
GE84 in summary

- **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



Services likely to be affected (Coordination required)

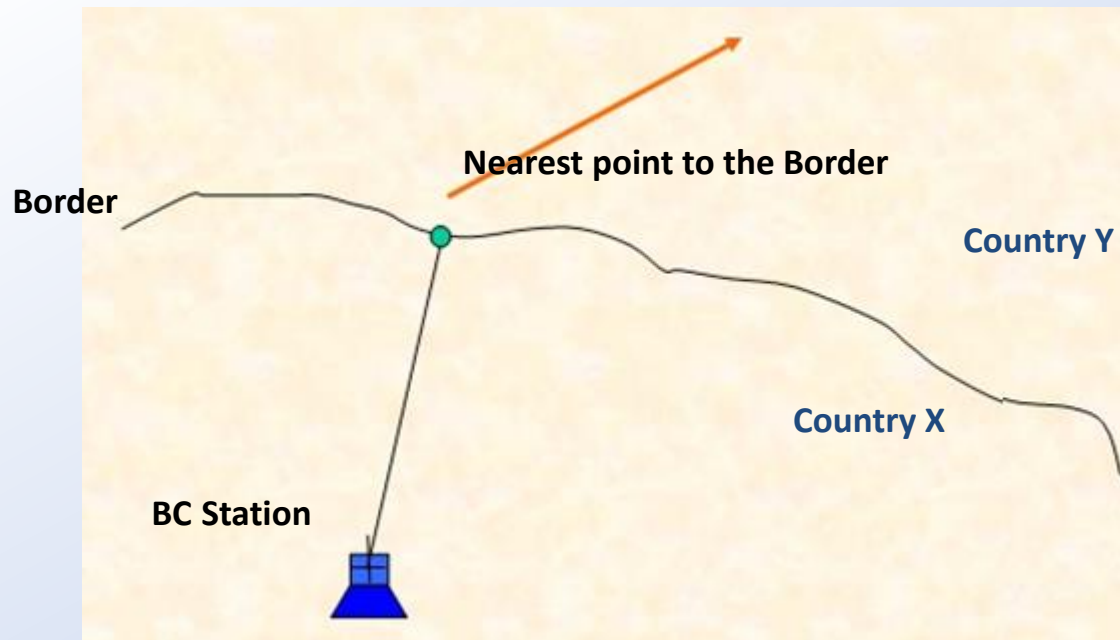
- ✓ Other VHF-FM sound broadcasting stations (4.2.2 a)
- ✓ ST61 television assignments in the band 87.5 – 100 MHz (4.2.2 b)
- ✓ Fixed and mobile services (4.2.2 c, d, e)
- ✓ Aeronautical radionavigation services above 108 MHz (4.2.2 f)

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

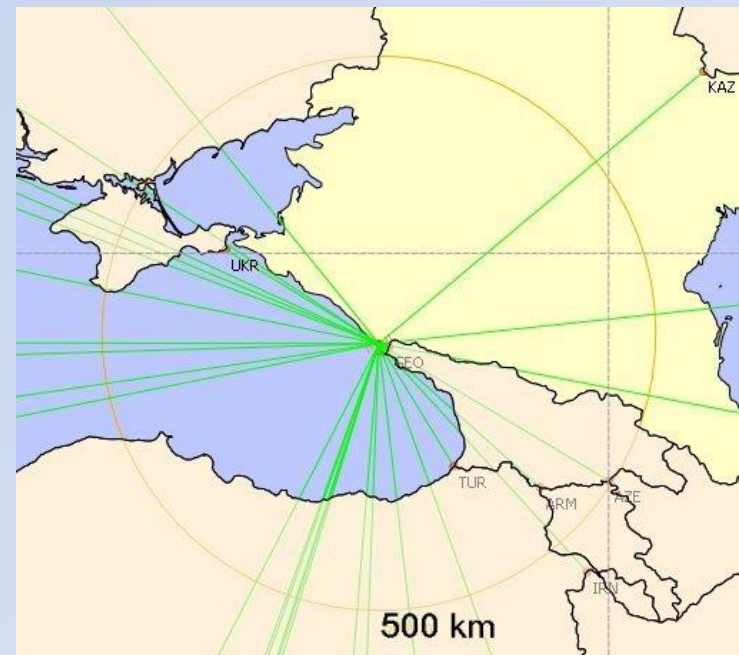
TABLE 4.1

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

		Effective antenna height (m)							
Effective radiated power		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

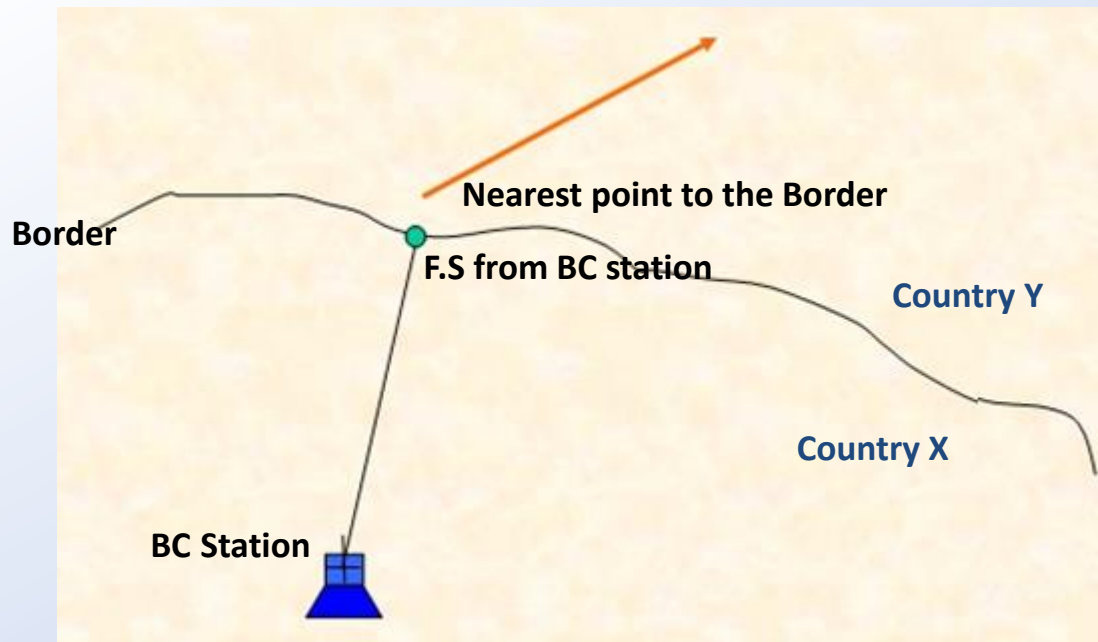
Coordination with Aeronautical Radio Navigation services

- 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 ($\mu\text{V/m}$)**
- Land mobile service: limits depend on the polarization.
 - Region 3 (87.5-100 MHz) and Region 1 (104-108 MHz)
 - horizontal polarization:) **18 dB($\mu\text{V/m}$)**
 - vertical or mixed polarization: **0 dB($\mu\text{V/m}$)**
 - Region 1 Monaco (87.5-88MHz)
 - horizontal polarization: **14 dB($\mu\text{V/m}$)**
 - vertical or mixed polarization: **6 dB($\mu\text{V/m}$)**

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

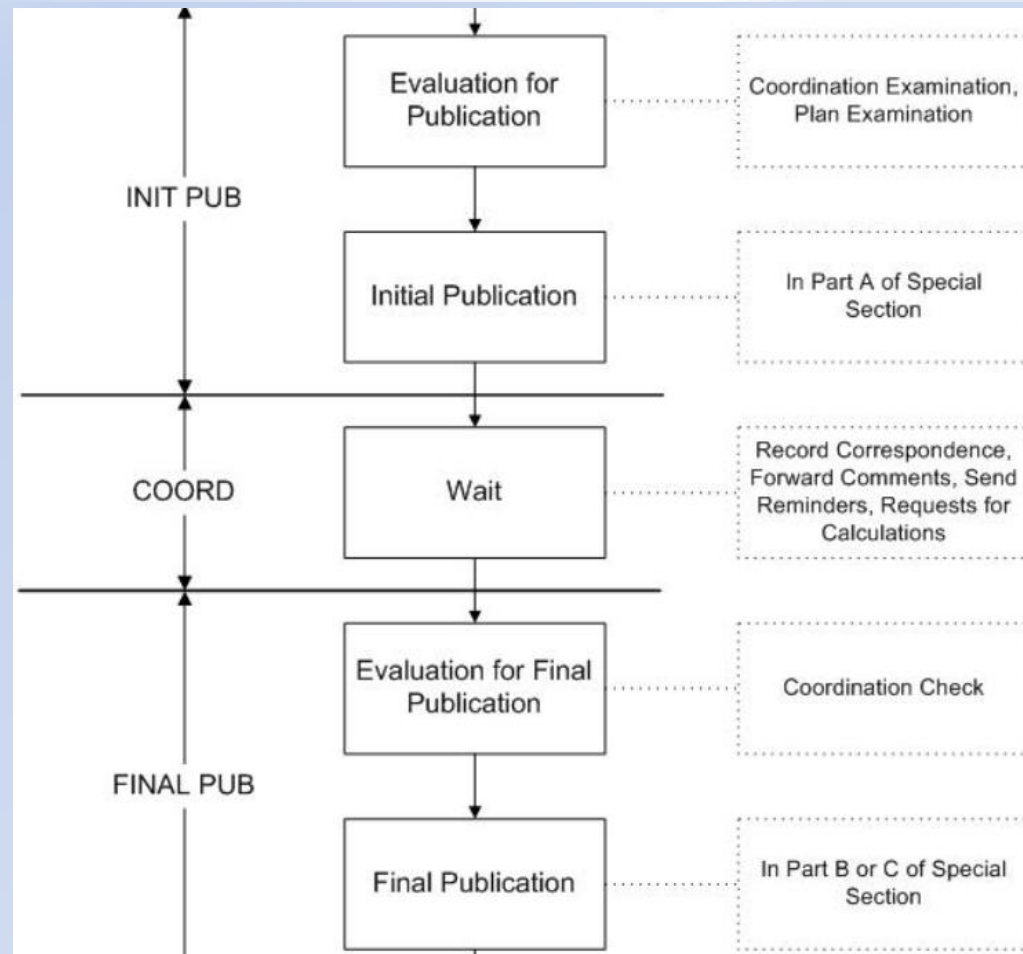
- **to resolve any incompatibility**, if reported by the non-Contracting Member.

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 $E_u \leq 54 \text{ dB}(\mu\text{V}/\text{m})$ (sound)
 - Resulting $E_u \leq 52 \text{ dB}(\mu\text{V}/\text{m})$ (television)
 - Resulting E_u increase $\leq 0.5 \text{ dB}$ relative to the reference E_u ($E_{u\text{-ref}}$).



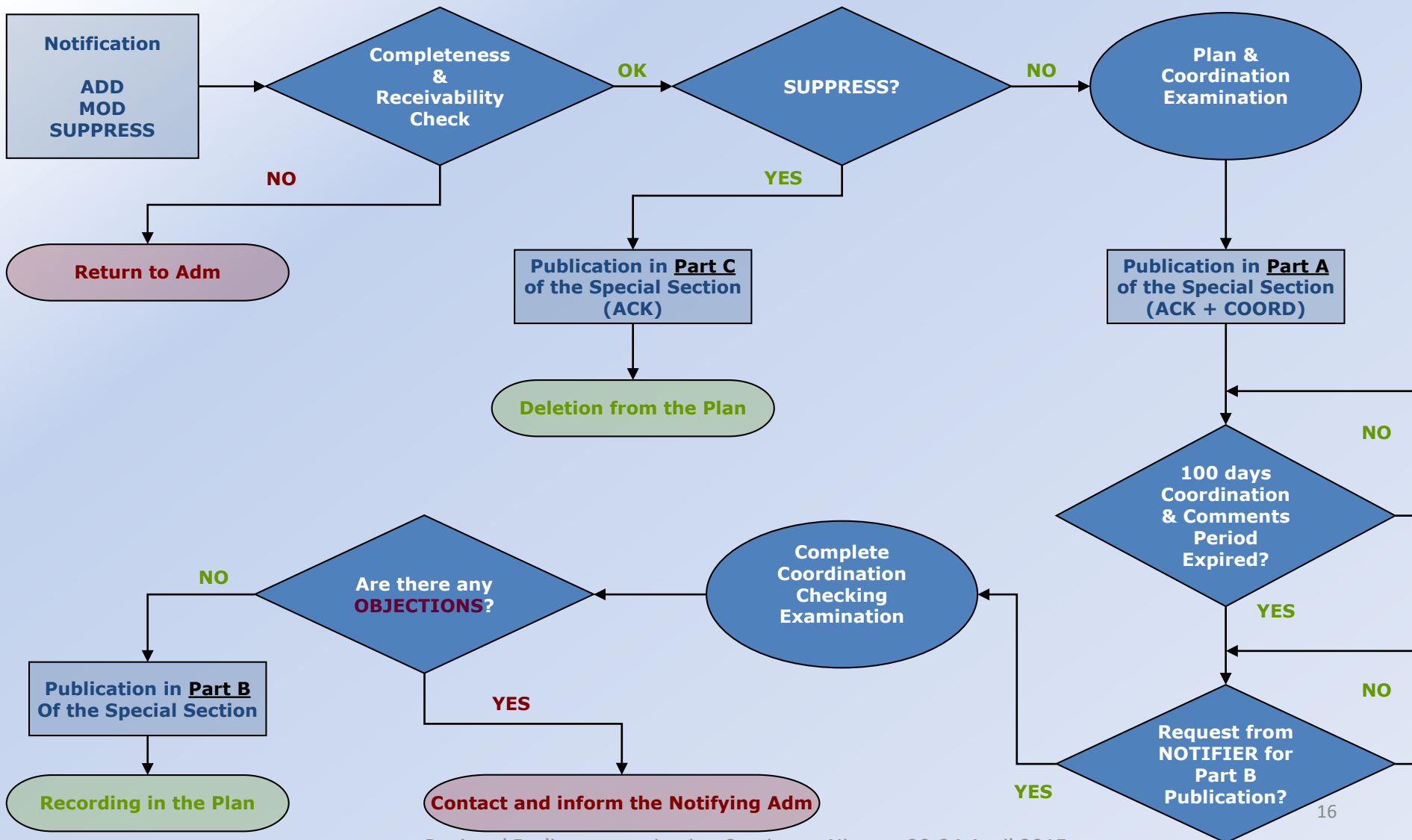
Procédure de modification du Plan



100 days Coordination Period

Reminders sent at 50 days
70 days

GE84 Plan modification Procedure



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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