



30TH WORLD RADIOCOMMUNICATION SEMINAR

24 – 28 October 2022

Geneva, Switzerland

Planning Procedure for HF Broadcasting - RR 12

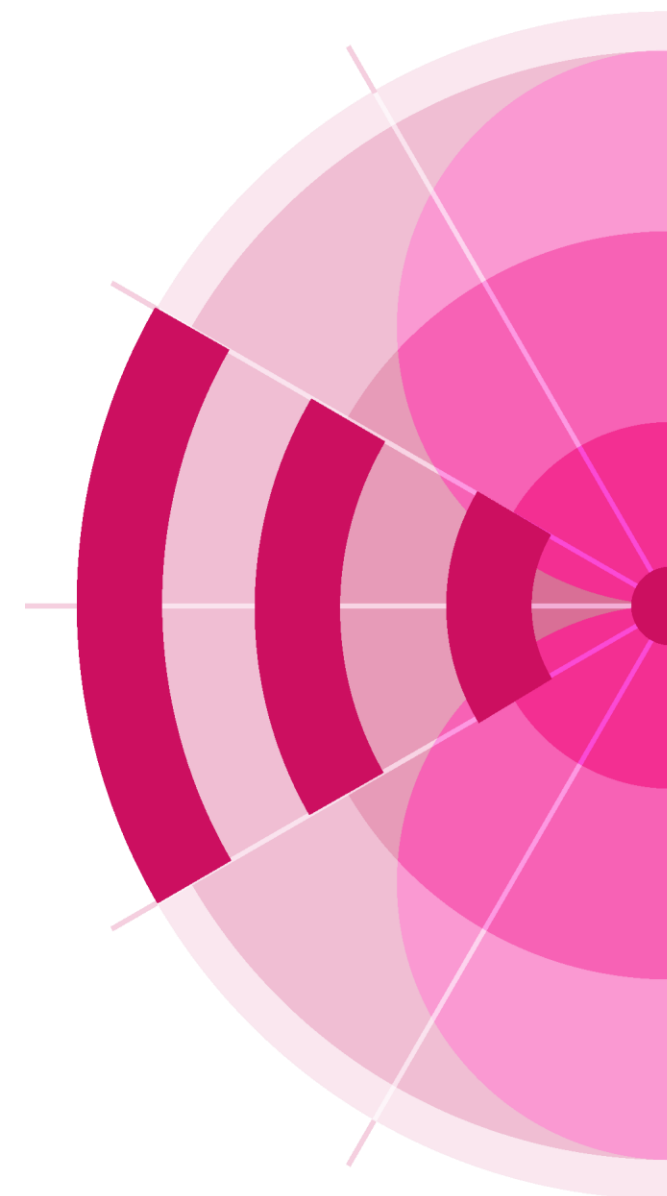
Nedialko Miltchev

Broadcasting Services Division

ITU-R

www.itu.int/go/wrs-22

#ITUWRS



Summary

- Planning procedure for HF Broadcasting – RR12.
- Introduction to HFBC notification.
- HFBC Schedule.
- Coordination and Regional Coordination Groups.

Planning Procedure

EQUAL Access



Main Principles:

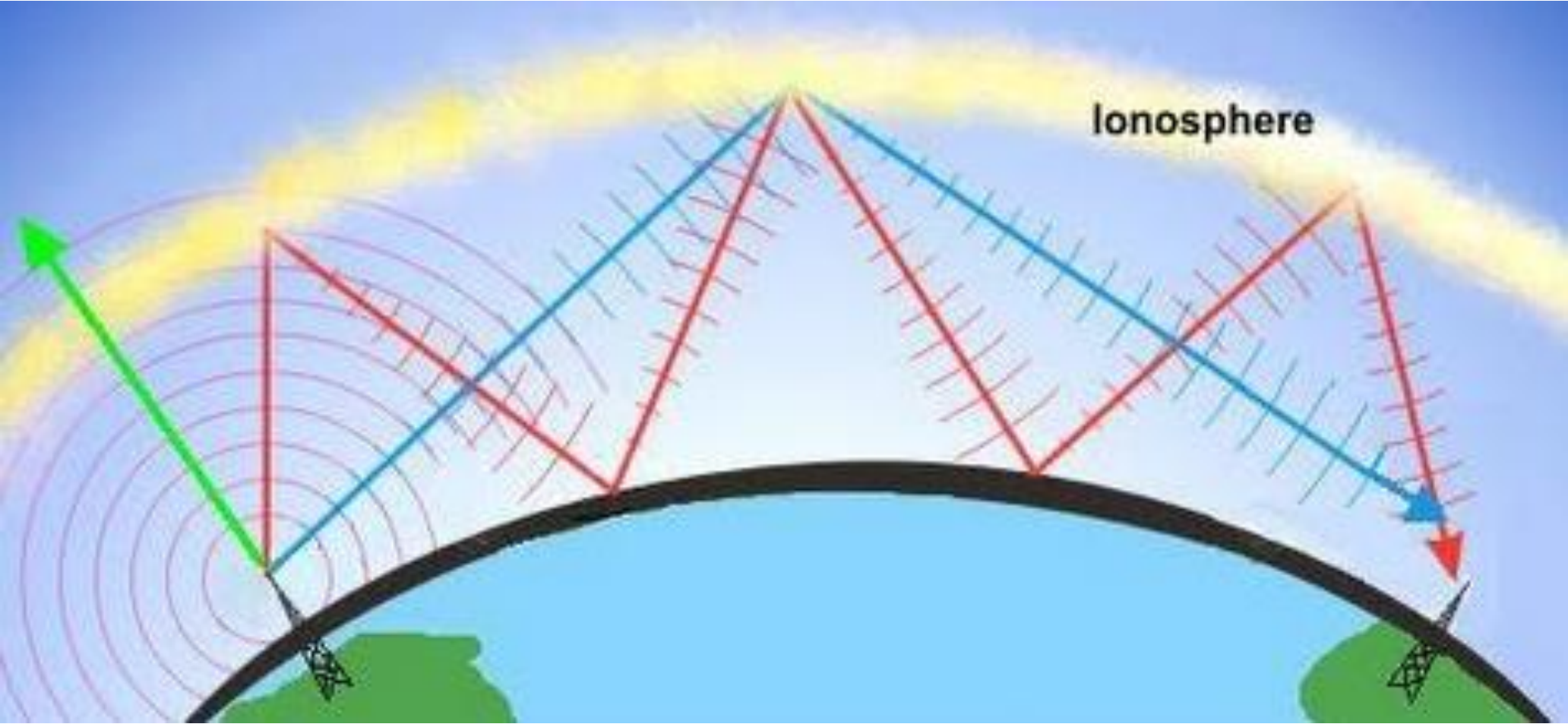
- Equal access to HF bands.
- Equitable treatment of national and international requirements.
- Efficient use of the spectrum.
- Minimize incompatibility.

Frequency bands

- ❑ HF bands between 5 900 kHz and 26 100 kHz
- ❑ Current allocation situation:

Band:	Frequency range [kHz]
6	5 900 – 6 200
7	7 200 – 7 300 *
7	7 300 – 7450
9	9 400 – 9 900
11	11 600 – 12 100
13	13 570 – 13 870
15	15 100 – 15 800
17	17 480 – 17 900
18	18 900 – 19 020
21	21 450 – 21 850
25	25 670 – 26 100

Particularities



Particularities

Two seasonal periods:

- Summer-Season A, Schedule A
- Winter-Season B, Schedule B



Schedule A:

- From last Sunday of March until Last Sunday of October

Schedule B:

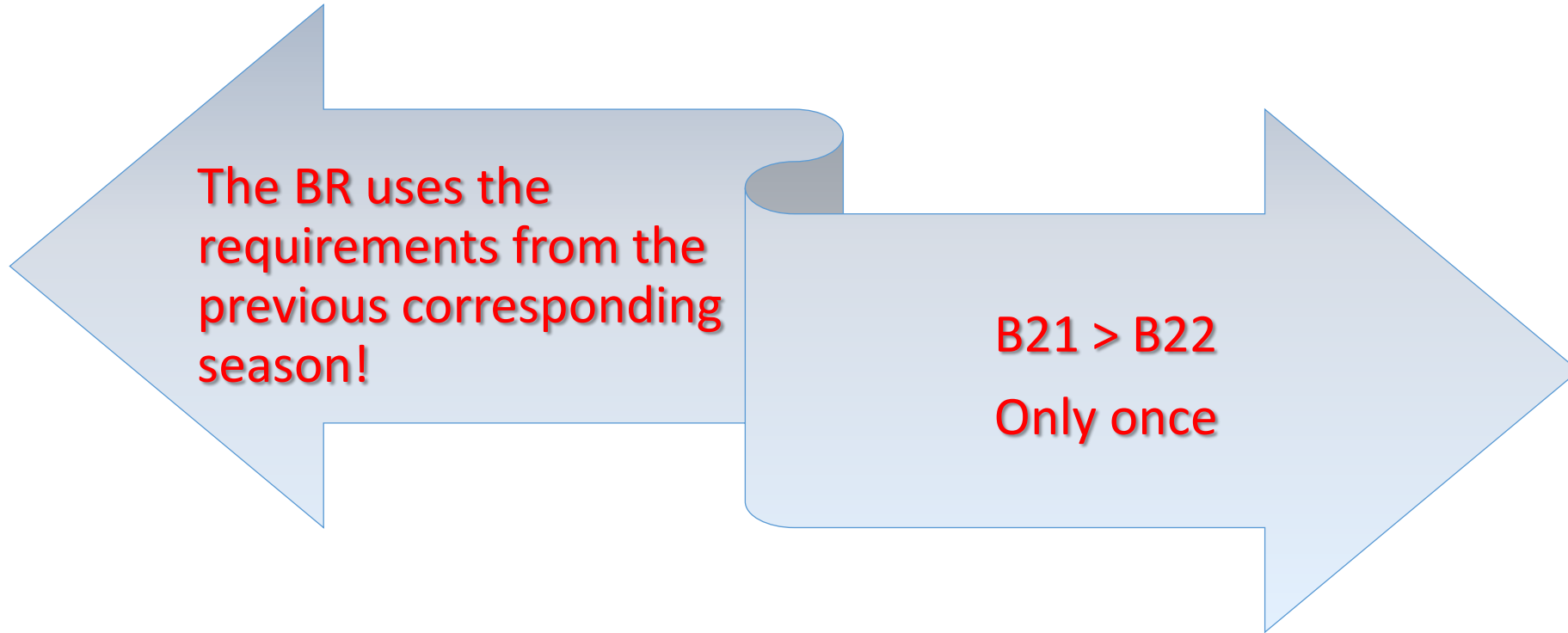
- From last Sunday of October until last Sunday of March

Season B22 –current season

Schedule title	Date of publication	Date limit for submissions
B22 Tentative 1 (B22T1)	End of August 2022	14 August 2022
B22 Tentative 2 (B22T2)	End of September 2022	18 September 2022
B22 Schedule 1 (B22S1)	End of October 2022	16 October 2022
B22 Schedule 2 (B22S2)	End of December 2022	11 December 2022
B22 Final (B22F)	End of April 2023	16 April 2023

[Circular letter CR/485](#)

No requirements are submitted?



Next season the requirements will be suppressed from the schedule

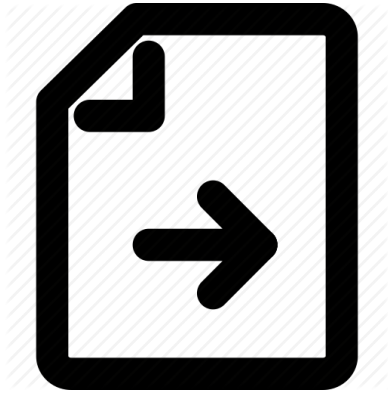
Who can notify?



- Administrations
- Authorized organizations

Administrations could authorize HF broadcasters, managers or other organizations to submit schedules

What to notify?



- Whole schedule, no "modifications"
- Common file format
- [File format for submission of HFBC requirements](#)
- [Example of a requirement file](#)

Via WISFAT

(Web Interface for Submission of Frequency Assignments/allotments for Terrestrial services)

<http://www.itu.int/ITU-R/go/wisfat>

Coordination



- Bilateral and multilateral
- Regional Coordination Groups
- Coordination on a common technical base

HFBC Regional Coordination Groups

ABU-HFC - Asia-Pacific Broadcasting Union - High Frequency Conference



www.abu.org.my

ASBU - Arab States Broadcasting Union



www.asbu.net

HFCC - High Frequency Coordination Conference



www.hfcc.org

HFBC Publication

The CD-ROM publication was discontinued and replaced by free of charge Online publication.

- 11 publications per year:
 - Two Tentative Schedules (T1,T2)
 - Two or three Schedules (S1,S2,S3)
 - Final Schedule (F)



<https://www.itu.int/en/ITU-R/terrestrial/broadcast/HFBC/Pages/Schedule.aspx>

HFBC Schedule contains:

- Monthly updated seasonal schedules.
- Propagation and compatibility analysis.
- Latest versions of the HFBC Reference tables.

On the ITU web site:

Combined schedules as notified in a text format:

<https://www.itu.int/en/ITU-R/terrestrial/broadcast/HFBC/Pages/Schedule.aspx>

HFBC Reference tables

- Established to identify a requirement.
- Maintained by the BR.
- Common use with HF Regional coordination groups.
- Set of 15 Reference tables (HFBC database):
 - Administrations, Frequency ranges, Broadcasters, Frequency management organizations, Transmitting sites, Antenna types, Languages, Solar activity (SSN), Target area (CIRAF zones), etc.
- Used for the creation of the requirement files.

HFBC Reference tables

Reference tables

HF Reference tables used for the preparation of requirement files. All files are in ASCII text format.

admin.txt	Administrations
antenna.txt	Transmitting antennas
authoris.txt	Authorized organizations
broadcas.txt	Broadcasters
ciraf.txt	Test points and corresponding CIRAF zones
fmorg.txt	Frequency management organizations
language.txt	Languages based on ISO-3
rngfreq.txt	Frequency bands
season.txt	Seasons
site.txt	Transmitting sites
sunspot.txt	Sunspot numbers

<https://www.itu.int/en/ITU-R/terrestrial/broadcast/HFBC/Pages/Reference.aspx>

HFBC requirement file:

- Used for notification to the BR and for coordination purposes.
- Example of a requirement file:

```
; A20 CUA 08-Jan-2020 CUA
;                               fmTotal reqs:88
;                               File:C:\A20\ITU_Article_12\CUA_A20_T1.TXT
; UAT:WPL0T2000EX-DFc U5.5.11(30/04/2019 08:37:00)- N.SCHALL
```

FREQ	STRT	STOP	CIRAF	ZONES	LOC	POWR	AZIMUTH	SLW	ANT	DAYS	FDATE	TDATE	MOD	AFRQ	Language	ADM	BRC	FMO	REQ#	
5910	0500	0600	1-85		SMG	100	000		0	928	1234567	290320	241020	D	Und	CUA	RDR	RDR	70	
5910	2100	0100	1-85		SMG	100	000		0	928	1234567	290320	241020	D	Und	CUA	RDR	RDR	71	
5985	2200	2230	31S,32S,41NW,42,43,49N		SMG	250	068		0	216	1234567	290320	241020	D	7594	Zho	CUA	UAT	UAT	128
7250	0710	0820	28N,28SE		SMG	250	055		0	151	1	290320	241020	D	8518	Ron	CUA	UAT	UAT	228
7260	0330	0400	48		SMG	250	146		0	618	1234567	290320	241020	D	13650	Somali	CUA	AGM	AGM	229
7315	0430	0500	47E,48W		SMG	250	151		0	216	1234567	290320	241020	D	7594	Apd	CUA	FPU	FPU	259
7340	0400	0500	48SW		SMG	250	151		0	218	23456	290320	241020	D	7923	Apd	CUA	MGB	MGB	280
7345	0500	0600	46		SMG	250	184		-6	386	1234567	290320	251020	D	7327	Eng	CUA	BBC	ENC	281
7360	2000	2030	46E,47W		SMG	250	175		0	156	1234567	290320	241020	D	7594	Eng	CUA	UAT	UAT	292

HFBC on the web

- HFBC Schedule
- Planning procedure.
- HFBC Reference tables.
- Notification: File format for the requirements, example.
- HFBC Circular letters
- Regional coordination groups
- ITU HFBC software

<https://www.itu.int/en/ITU-R/terrestrial/broadcast/HFBC/Pages/Schedule.aspx>

ITU HFBC software

- Consistent with Article 12 of the Radio Regulations and Res.535(Rev.WRC-03)
- HFBCREQ - Data capture software.
- HFBCVAL - HF Data validation software
- ITUHFBC - HF Calculation software.
- HFBCANT - HF Antenna calculation software

Thank you for your attention!

ITU – Radiocommunication Bureau

Questions to brmail@itu.int

