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ITU TSD/BCD activities in the introduction of digital broadcasting

ITU-D Regional Development Forums
2010 for the African region
Banjul, The Gambia
14 – 16 July 2010

Overview



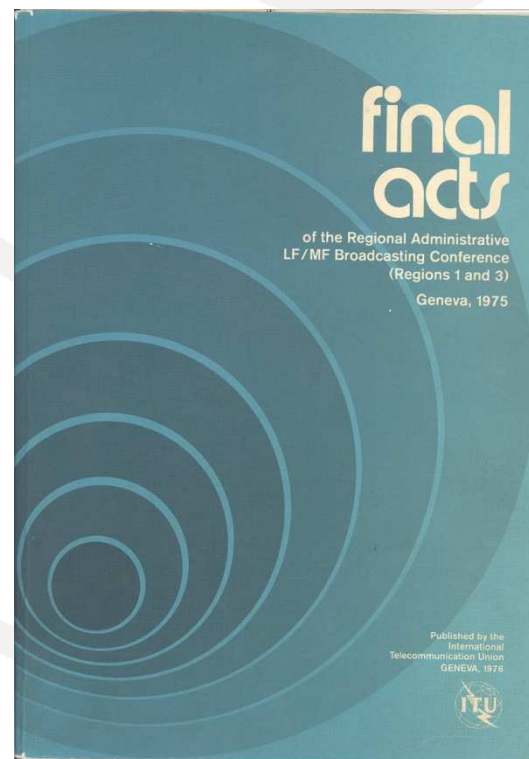
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- LF/MF bands
- HF bands
- Band II
- Bands III, IV and V
- BCD Web-based tools



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LF/MF Bands



Banjul, Jul 2010



LF/MF Bands

- Governed by GE75 Regional Agreement
- LF - 150 – 285 kHz
- MF – 525 – 1 605 kHz
- Digital modulation possible under:
 - RRB decision CCRR/20 of December 2002
 - Reduction of EMRP by 7 dB w.r.t. the analogue Plan assignment

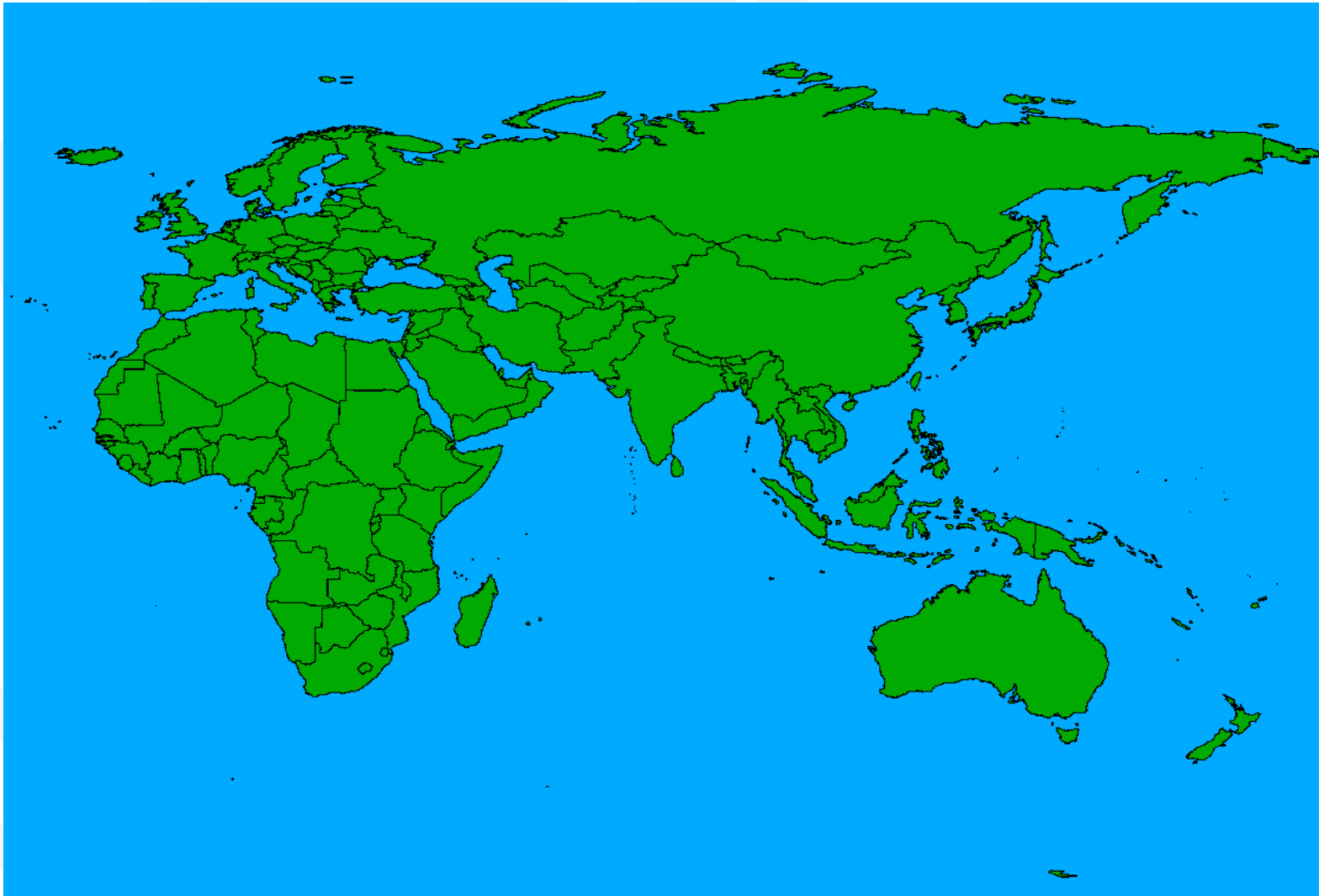
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LF/MF Bands

GE75 Planning Area



Banjul, Jul 2010



LF/MF Bands - implementation

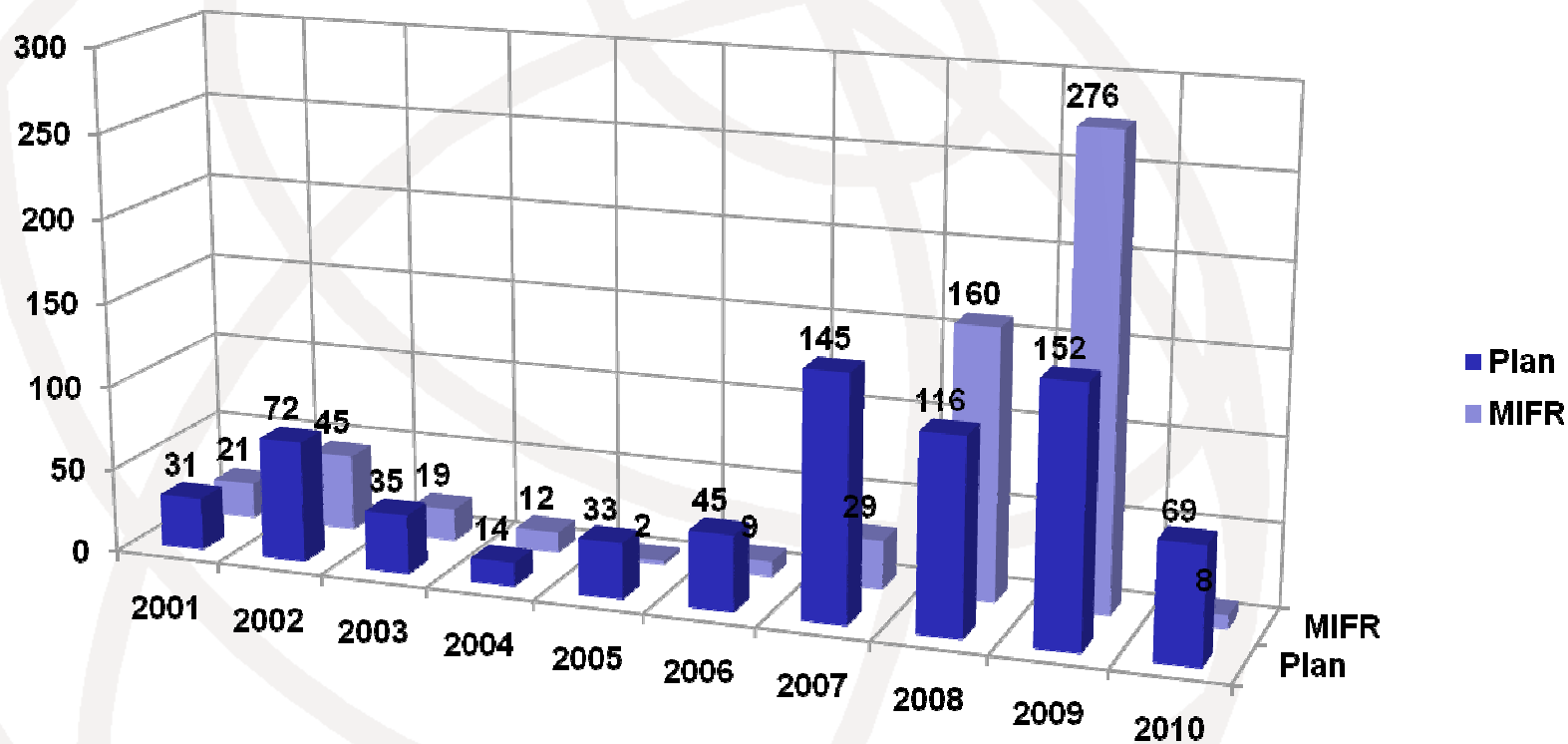
- Software tools in process of review:
 - Increased functionality
 - Release to membership
- Candidate standards ITU-R BS.1514:
 - DRM30
 - IBOC-DSB
- One digital notification to date

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LF/MF broadcasting submission/notifications





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HF Bands



HF Bands

- Governed by Art. 12 of the RR (WRC-97)
- Several bands 5 900 – 26 100 kHz
- Digital modulation possible under:
 - Res. 517 of WRC-03 – Introduction of digital modulation in the bands 5 900 – 26 100 kHz
 - Res. 543 of WRC-03 – Protection ratios



HF Bands – implementation

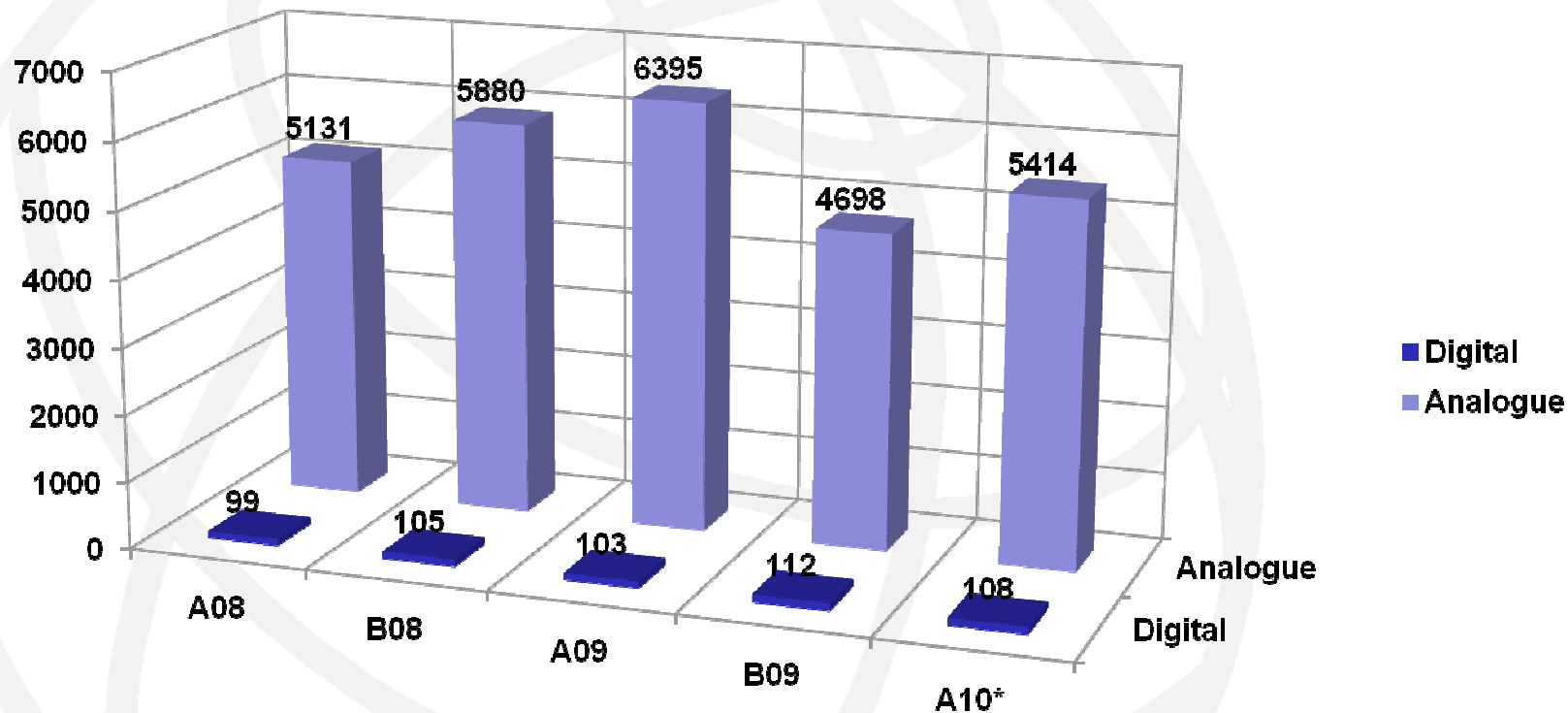
- HFBC software downloadable from BCD website on HF – includes WRC-2003 decisions
- Subscribe to CDROM with schedules
- Submit requirements per season
- Negotiate in coordination meetings

Digital broadcasting



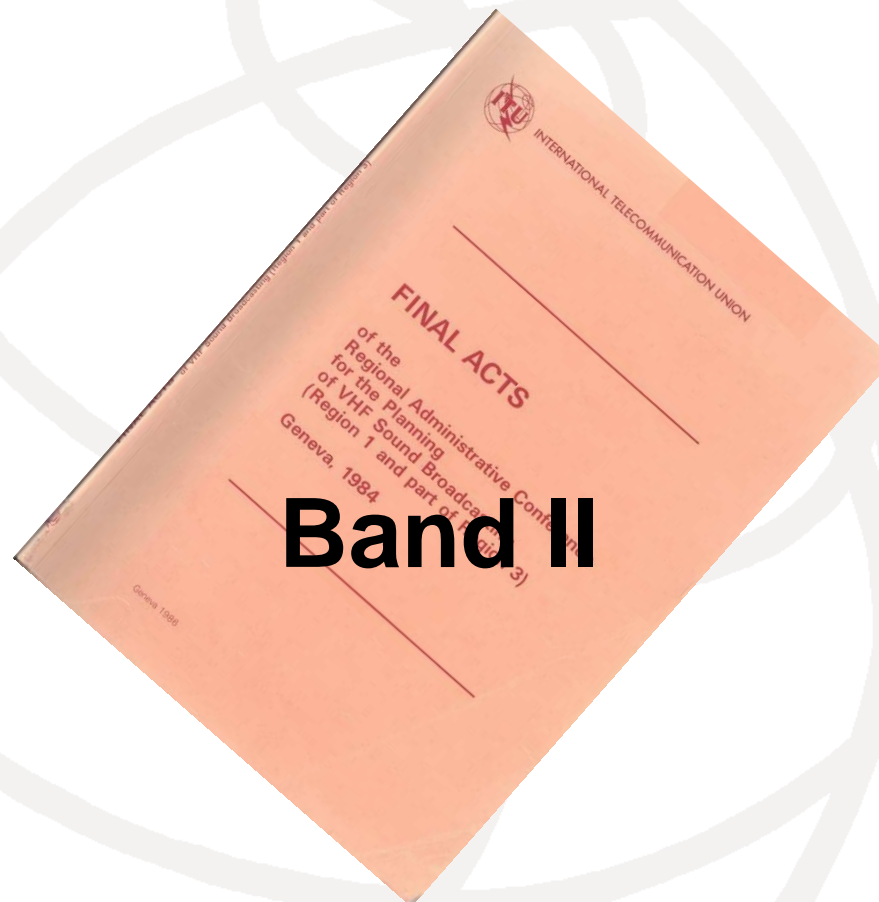
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HF broadcasting requirements





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Band II



Band II

- Governed by GE84 Regional Agreement
- 87.5 – 108 MHz
 - FM sound broadcasting band
 - 100 kHz channelisation arrangement
- Digital modulation possible under:
 - 3.1 of Chapter 3 to Annex 2 of GE84

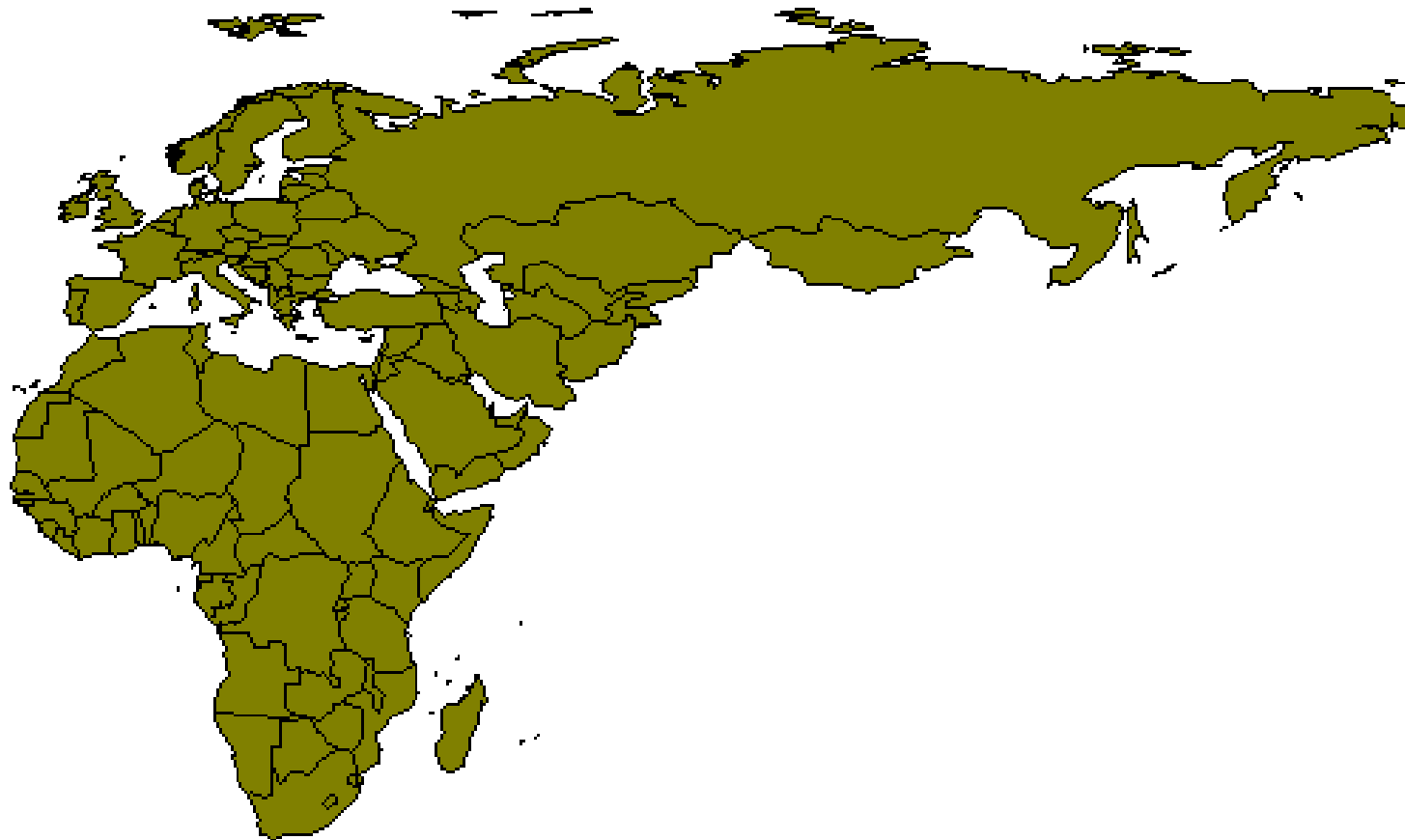
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Band II

GE84 Planning Area



Banjul, Jul 2010



Band II - implementation

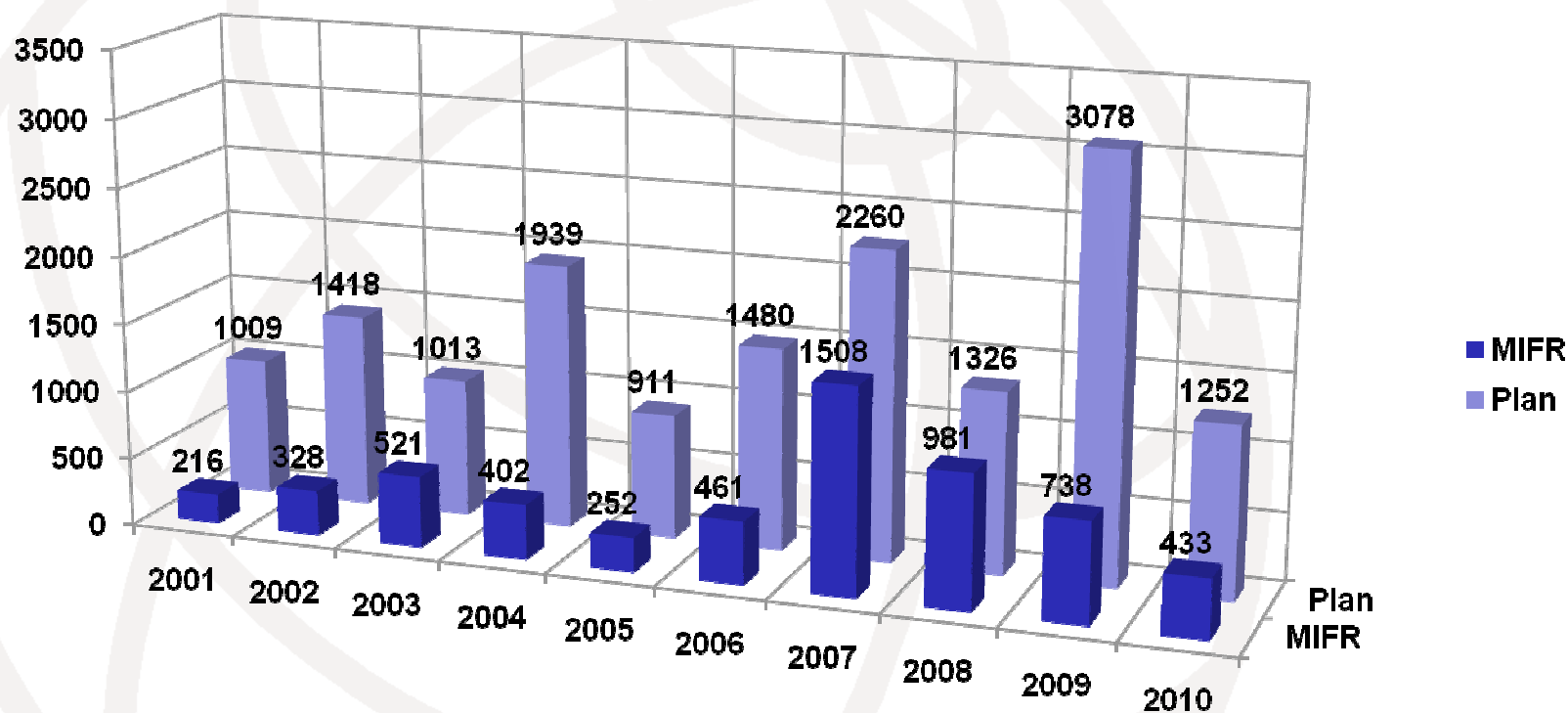
- GE84 software currently only for analogue modulation
- Bands extremely congested in large parts of the planning area
- Review of ERP reduction requirements of digital assignments notified under analogue Plan assignment
- Candidate standards being tested by membership:
 - DRM+
 - FMeXtra
 - HD Radio
- No digital notifications to date

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GE84 Plan modifications and notifications





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GE06 Bands



GE06 Bands

- 174 – 230 MHz (Band III)
 - 7 and 8 MHz channelisation arrangements
- 470 – 862 MHz (Bands IV/V)
 - 8 MHz channelisation arrangement
- Adopted planned standards DVB-T and T-DAB
- Main activity i.t.o. digital terrestrial broadcasting in Region 1

Digital broadcasting

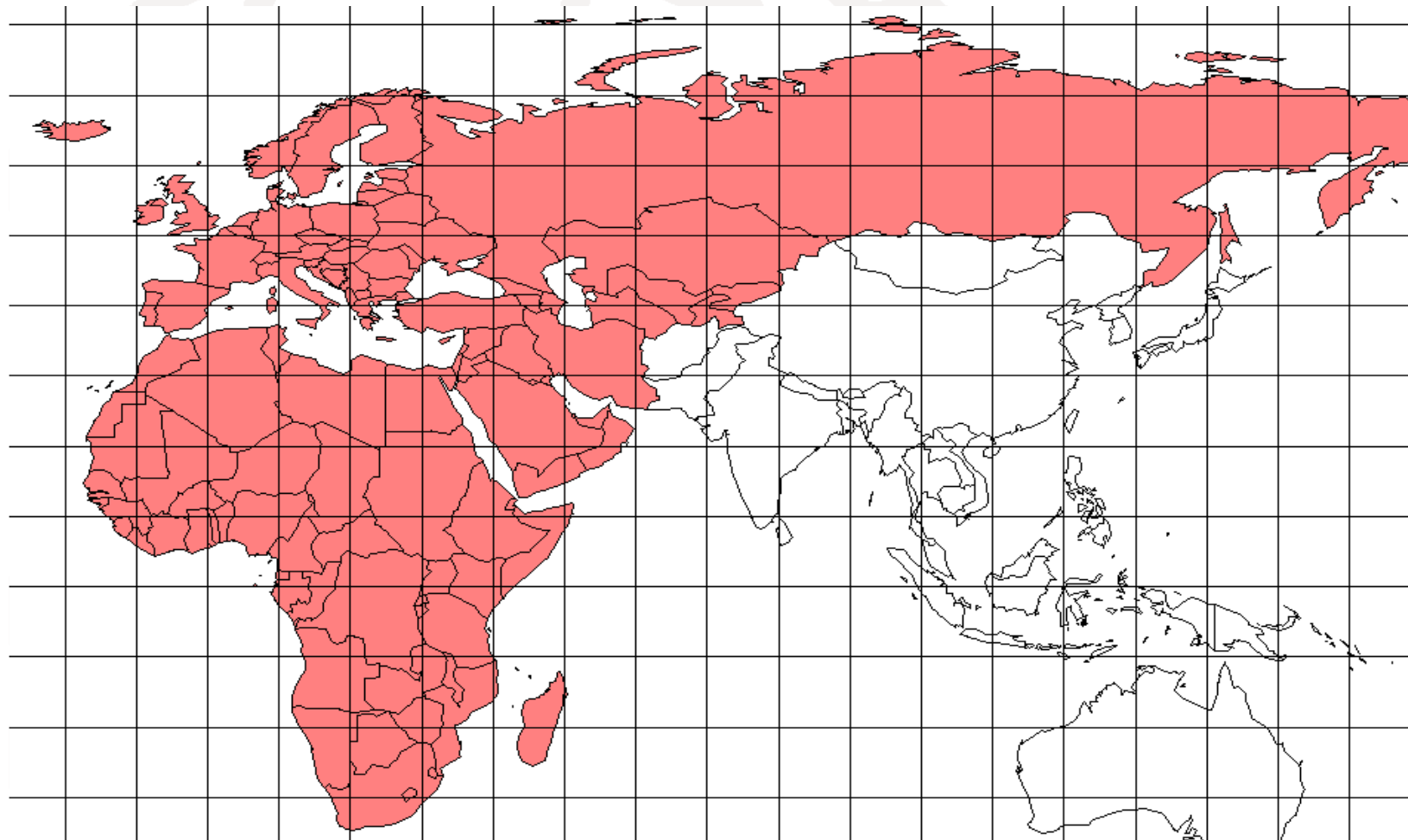


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GE06 Bands

Planning Area

170°E





GE06 Bands - implementation

- Coordination and conformity tools
 - Standalone and web-based

- Rules of Procedure in order to implement Final Acts

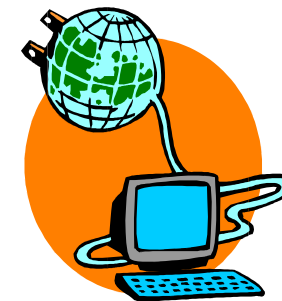
- Implementation of alternative standards under envelope of Plan entries (considered by some membership countries in GE06 Planning Area):
 - T-DAB → DAB+ and T-DMB
 - DVB-T → DVB-T2 and ISDB-T



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BCD web-based tools



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<http://www.itu.int/ITU-R/terrestrial/broadcast/index.html>

The screenshot shows a web browser window displaying the ITU-R Terrestrial Services Broadcasting page. The browser's address bar shows the URL <http://www.itu.int/ITU-R/terrestrial/broadcast/index.html>. The page features a navigation menu with links for ITU Sectors, Newsroom, Events, Publications, Statistics, and About ITU. The main content area is titled "Broadcasting Services Division" and provides information about the division's role in examining notices and submissions for frequency assignments. It lists several main activities, including examining proposed modifications to frequency plans, MIFR notifications, and compatibility analysis for HF broadcasting. A contact email brbcd@itu.int is provided. On the right side, there are promotional boxes for "BCD on the Web!" featuring tools like ePub beta, eQry beta, myAdmin, and eTools beta. A "Burning issue..." section is also visible at the bottom right.

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Home : ITU-R : Terrestrial Services : Broadcasting

ITU Sectors | Newsroom | Events | Publications | Statistics | About ITU

Broadcasting Services Division

Broadcasting Services Division (BCD) examines notices and submissions for frequency assignments concerning television and sound broadcasting terrestrial services in all broadcasting bands (LF, MF, HF, VHF and UHF) and provides assistance to administrations with respect to the technical, regulatory and administrative procedures applicable to the planning of terrestrial broadcasting services.

Its main activities include:

- Examining proposed modifications to the frequency Plans with respect to their impact on other administrations in accordance with the procedures specified in the Regional Agreements.
- Examining proposed notifications for recording in the Master International Frequency Register (MIFR) in accordance with the Radio Regulations and associated Regional Agreements.
- Examining the compatibility analysis for HF broadcasting requirements submitted for inclusion in the seasonal schedules in accordance with Article 12 of the radio Regulations.
- Providing assistance and training to administrations in the application of relevant provisions of the Radio Regulations and Regional Agreements.
- Developing technical softwares that assist administrations in the planning and coordinating of terrestrial broadcasting services.

Contact: brbcd@itu.int

BCD on the Web!

Broadcasting data only a few clicks away!

ePub beta
Special Sections of proposed modifications to Broadcasting Plans!

eQry beta
Fast search on Plans and Master Register

myAdmin
Your own office at the ITU

eTools beta
GE06 coordination contours and conformity examination

Burning issue...
Digital Switchover

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Contact for this page : ITU-R Web Coordinator
Updated : 2010-03-15

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Configure profile and settings

The screenshot shows a web browser window with the URL <http://www.itu.int/ITU-R/eBCD/MemberPages/myAdministration.aspx>. The page features the ITU logo and navigation links for [Español](#), [Français](#), and [Русский](#). The breadcrumb trail is [Home](#) : [ITU-R](#) : [Terrestrial Services](#) : [Broadcasting](#). A search bar is present. The main navigation menu includes [ITU Sectors](#), [Newsroom](#), [Events](#), [Publications](#), [Statistics](#), and [About ITU](#). Below the menu, there are links for [ePub](#), [eQry](#), and [eTools](#), along with [myProfile](#) and [Logoff](#). The platform information is BR_GE06, with 16 online users (AFG: user botha). The main heading is **myAdmin-Beta**, with the subtitle "Your own office at the ITU: Simulate Member State Users (ITU users only)". There are four buttons: [Change Adm \(ITU\)](#), [my MailBox](#), [my Plan Statistics](#), and [my MIFR Statistics](#). A note states: "Information from a daily copy of the BR database (last update: 7/7/2010 3:42:49 AM)". Below this is a section for "Select Administration for Portal Tests" with a dropdown menu set to "Select --" and a "GO" button. The footer contains links for [Top](#), [Feedback](#), [Contact Us](#), and [Copyright © ITU 2010 All Rights Reserved](#). It also includes contact information for the webmaster and a generation timestamp of 2010-07-07. The browser's address bar shows <http://www.itu.int/het/ITU-R/index.aspx?lang=en>.

Digital broadcasting



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Configure personal profile notifications

A screenshot of a web browser displaying the ITU member administration page. The browser's address bar shows the URL: http://www.itu.int/ITU-R/eBCD/MemberPages/myAdministration.aspx. The page header includes the ITU logo, navigation links for 'Español', 'Français', and 'Русский', and a search bar. The main content area shows a user profile for 'botha' with a 'Save' button. A modal dialog box is open, showing notification preferences: 'Send me an E-mail when new Special Sections containing my notifications/notifications affecting me are available on the web' (checked) and 'Send me an E-mail when Coordinations/Objections for my notices enters the database' (unchecked). Below the dialog, there are links for 'my MIFR Statistics' and a timestamp 'update: 7/7/2010 3:42:49 AM'. At the bottom, there is a footer with copyright information: 'Copyright © ITU 2010 All Rights Reserved' and 'Generated : 2010-07-07'. The browser's status bar at the bottom shows the URL: http://www.itu.int/net/ITU-R/index.aspx?lang=en.



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Thank you
Merci beaucoup

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