



اتحاد إذاعات الدول العربية

جامعة الدول العربية

# ARAB STATES BROADCASTING UNION

## **2<sup>ND</sup> ARAB HDTV GROUP MEETING**

- **REPORT AND RECOMMENDATIONS** -

November 1<sup>st</sup> and 2<sup>nd</sup>, 2008

On November 1<sup>st</sup> and 2<sup>nd</sup> , the second Arab HDTV Group meeting was held at the ASBU Headquarters in Tunis, under the chairmanship of Dr Riyadh Kamal Najm, Deputy Secretary of State in charge of Engineering Affairs in the Kingdom of Saudi Arabia Ministry of Culture and Information. The meeting was attended by:

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| 1- Jordanian Broadcasting Corporation                    | Eng. Soufiane Naboulsi   |
| 2- Bahrain Broadcasting Corporation                      | Mr Hassan Abdelkarim<br>Ms Safia Saad Remihi   |
| 3- National Office for Radio and Television Broadcasting | Eng. Mohsen Ghumam Malek<br>Eng. Moncef Khemiri<br>Eng. Kamel Bejaoui  |
| 4- Algerian Television                                   | Ms Houria Khethir<br>Eng. Jamal Aggoun<br>Eng. Taleb Rachid  |
| 5- Algerian Broadcasting Establishment                   | Eng. Abdelwahab Ben Dekhis   |
| 6- Djibouti Broadcasting General Directorate             | Eng. Khaled About Mubarek  |
| 7- Saudi Culture and Information Ministry                | Eng. Dr. Riyadh Kamel Najm<br>Eng. Ibrahim Muzid Al Amr<br>Eng. Abdelhadi Hassine<br>Eng. Hassine Touiher<br>Eng. Nidhal Hamza Mkademi |
| 8- Syrian Broadcasting General Corporation               | Eng. Dr Adnane Salhab  |
| 9- Ministry of Information/ State of Kuwait              | Eng. Issam Safar Ali Safar<br>Mr Jassem Sharif   |
| 10- Iraqi Information Network                            | Eng. Imed Abdulaziz Hameed   |
| 11- Palestinian Broadcasting Corporation                 | Eng. Fathi Mustafa Ahmed   |
| 12- Qatari Broadcasting Corporation                      | Mr Khaled Naama  |
| 13- Egyptian Broadcasting Union                          | Eng. Mabrook Abdelmaksood  |
| 14- Lebanese Television                                  | Eng. Tawfik Halawi   |
| 15- The Great Jamahiriya Broadcasting Corporation        | Eng. Abdurrahman Abu Nakassa   |
| 16- Mauritanian Television                               | Eng. Adham Mohamed Takiyullah  |
| 17- Yemenite Broadcasting General Corporation            | Eng. Muhammed Samman<br>Eng. Abdurrahman Nouira  |

	Eng. Adeeb Lamaqtari Eng. Muhammad Ahmed Ghanem
18- Middle East Broadcasting Centre	Eng. Abdel Aziz Lahdhil Eng. Amjad Idriss
19- Al Manar Television	Eng. Youssef Zebib
20- Arab Centre for Information and News Exchange	Mr Elyes Belaribi Eng. Bechir Ben Kada
21- Arab Centre for Radio and Television Training	Mr Hayder Yaziji
22- The Arab Organisation for Satellite Communication - ARABSAT	Eng. Rabii Idou Eng. Salah Zoobi Eng. Adi Fayez al Qudhat
23- ASBU General Directorate	Eng. Abderaheem Suleiman Mr Mohamed Sayyed Ahmed Mr Abdelmoumen Ouraoui Ms Moufida Limam Eng. Bassel Zoobi Eng. Mohamed Abdallah Othman Eng. Ridha El Hbaieb Ms Jalila Gara Ms Asma Said

Also took part in the meeting:

EBU	Mr David Wood, Group Vice Chair
ITU	Mr GueJo Jo
THOMSON	Mr Jean-Pierre Lacotte Mr Laurent Velty
DR MEDIA	Mr Peter Olaf Looms
ALL SYSTEMS INTERNATIONAL	Mr Zuhair Sabawi
GORILLA	Dr Koh Shyh-Pin
SONY	Mr Ridha Annabi

## I. Meeting Agenda

- Arab HDTV Roadmap in the Arab Region
- Discussion of HDTV Topics involving:
  - Audio Production format
  - Contribution format
  - Transmission systems
  - Set-top Boxes
- Role of Manufacturers in the Group
- Encouraging membership in the Group
- Promotion of HDTV in the Arab Region
- Arab Broadcasters Experience
- HDTV equipment development and overview

The meeting started with the following presentations:

- EBU representative dealt with the development and extent of HDTV services throughout the world particularly in Europe.
- Thomson made a presentation about the French experience with the introduction of HDTV in France, in particular the outcomes and strategies of French HDTV Consortium, being considered as the best organised Consortium in Europe.
- ASBU representative submitted a report on the HDTV coverage of the 2008 Beijing Summer Olympic Games carried out by ASBU in collaboration with ARABSAT.

### 1. Choice of the Production Optimal Scan Format

The Group reviewed the different image formats in the production process and deemed that progressive scan is the best from the technical point of view, in the near future. The Group was informed of the increasing use of the progressive scan technique in the Arab region and worldwide.

The Group reiterates its previous decision to adopt progressive scan 720p for current projects, commission and operate equipment pertaining to that system, take into account future migration to progressive scan 1080p, and set up network distribution inside the studio at a bit rate of 3 Gbps to accommodate the 1080p system implementation.

### 2. Choice of HDTV Delivery Format

The Group highlighted the technical advantages of signal transmission and delivery in progressive scan format, thus keeping good signal quality at average low bit rates besides getting rid of artefacts that exist in interlaced scan format while complying with the advised system in the production chain. The Group also took note of the HD Television Committee report on HD in Europe and France where it was pointed out that the current reception equipments is capable of receiving both signal formats instantly without incurring any extra equipment or cost.

The Group noted that the reception equipment may be manufactured to comply with the different specifications and requirements of the world broadcasters.

Therefore, the Group makes the following recommendations:

- Adoption of the progressive scan system in the transmission and delivery chain, in order to keep up good signal quality throughout the whole production and delivery process.
- Setting specifications and requirements for HDTV reception equipment, taking into consideration the standards set by IEC and by national and regional groups in the world that have already set technical specifications for the equipment manufactured in their own regions.
- It is necessary to get in touch and address world manufacturers of receiving equipment, such as SAGEM and PACE in Europe as well as Asian manufacturers.

### **3. HDTV Transmission Compression Systems**

All studies carried out to assess the encoding and compression of transmitted signals have shown that image digital compression schemes using MPEG-4 ITU-H264 technique is considered the best from the technical and economic points of view. The Group also noted that this scheme has been adopted in different parts of the world and that all available data testify to its actual generalisation all over the world. It should be noted that future equipment operating with that technique can automatically receive television signals compressed with MPEG-2 format (backward compatible) and is now available at reasonable prices. The issue of the licence rights for the use of this technique has been solved as they are now payable in one go, at reasonable prices.

Therefore, the Group recommends the adoption of the MPEG-4 H264 compression scheme in the Arab region, and follow up the issue of the system licence fees.

As for sound, there are two main compression techniques used world wide: MPEG-4 AC3 and MPEG-4 AAC, each has its own advantages. Both have been implemented in reception equipment in Europe. As for audio production, there is the Dolby Surround (5.1) involving the recording of audio signals from 6 positions surrounding the set. This operation gives an extra sound dimension to HDTV viewers. However, it has been noted that TV sets without the Dolby Surround system will be subject to perceptible noise in audio play out. There is therefore need to follow up, with reception equipment manufacturers, on the issue of reception equipment compatible with the most adopted HDTV audio formats in the world.

### **4. Programme Exchange and Studio Compression Systems**

The Group was briefed on the documentation about the experiments of HD digital compression systems in the production process. There exist different compression systems, each with its own advantages and drawbacks. The Group came to the conclusion that the experiments, at the time the meeting was held, did not yield enough data to recommend any of these systems.

The Group recommended entrusting ASBU *Engineering Task Force "C" on Production and Operation* with following up on these issues and submitting detailed report and recommendations for the next meeting.

## **5. The Arab Strategic Plan to introduce HDTV**

The Group was briefed on the draft of Arab strategic plan to introduce HDTV in the Arab region, prepared by the relevant Task Force and a presentation was made by Engineer Mohsen Ghammam. The Group commends the efforts to make this Plan and recommends follow up and amendment of the plan to take into account all necessary adjustments pertaining to the programming, administrative and legal aspects.

## **6. Promoting HDTV in the Arab Region**

**6.1.** The Group discussed the ways and means to promote HDTV services and inform Arab viewers on the merits and advantages of this service. It recommends to:

- Produce information material in the form of a simplified TV clip, in cooperation with members and parties interested, to be broadcast and exchanged via ASBU channels, and distributed via all ASBU available means.
- Publish a brochure in Arabic to publicize HDTV, the extent of its spread in the world, the advantages of its use, and the financial costs it will incur. The brochure will be sent to all stake holders. The interested manufacturers will be called upon to sponsor the publication of the brochure. The Group entrusted the Committee Bureau (Chair and Vice Chairs) with preparing the main material needed for the brochure.  
ASBU member organizations can benefit from the brochure material in producing radio and television spots and stings for their respective viewers in order to publicize HDTV services, present its benefits, the ways to deploy it in their region and take advantage of the standardized formats agreed upon and recommended by the Arab HDTV Group.

**6.2.** The Group Secretariat was asked to keep informing satellite and terrestrial television channels, broadcasting to the Arab region, about all the guidelines, goals, working practices of the Arab HDTV Group and invite them to join the Group.

**6.3.** The Group Secretariat, Chair, Vice Chairs and members should engage further in informing HDTV equipment manufacturers (for production, delivery and reception) about the Arab HDTV Group activities and goals and invite them to join the group, as their participation in the Group activities will bring them added benefits.

**6.4** The Group discussed the importance of sharing international experiences in HD production techniques including the creative and technical aspects. It also stressed the necessity for decision makers in the Arab broadcasting corporations to make field visits to advanced HDTV production centres. The Group therefore recommends cooperating with European Broadcast Union and the French HDTV Consortium, to arrange field visits to HDTV production centres in France and Switzerland, for Arab Broadcasters executives in engineering, programming and administration.

## **7. Introducing HDTV**

The Group recommends to all Arab entities and organizations planning to purchase new Outside Broadcast vans, or equip studios or infrastructure, to adopt HDTV technical specifications according to what is recommended by the Group, especially that prices of HDTV equipments are getting closer to those of SD equipments.

## **8. HDTV Reception Equipment**

The Group reiterates the previous recommendation on addressing the concerned parties in the Arab region to insure that the HDTV reception equipments being marketed are able to receive both open (free-to-air) and conditional access (encrypted pay TV) signals. The Group also urges the relevant parties in the Arab region to adopt these specifications for reception equipment.

## **9. Archives**

The Group reiterates its previous recommendation that it is not necessary to transfer the present archives to HDTV format, unless the need arises to use a certain material in an HDTV environment. Mention should be made here of the necessity for ASBU member organizations to continue preserving archives according to their existing plans, thus allowing them to have easier access to the archives.

## **10. Engineering and Programming Training**

The Group was informed that ASBU has planned, for the coming years, training courses, at the Damascus Arab Centre for Radio and Television Training, on HDTV production and transmission techniques.

The Group reiterates its previous recommendations on the necessity of planning training for program production in the 16:9 format and emphasizes setting up training programmes on the subject, at the national and regional levels.

The Group also highlights the necessity of cooperating with other training centres, broadcasting unions, specialised organisations, manufacturers, experts, etc., to implement these programmes.

## **11. Safe areas in HDTV shooting**

The Group advises all organisations undertaking production using 16:9 aspect ratio image format to comply with the guidelines issued by ITU recommending areas at the edges of the picture in which critical content should not be placed, in order to guarantee compatibility between wide-screen 16:9 and standard 4:3 formats.

The Group requested ASBU to include training sessions on this subject at the Arab Centre for Radio and Television Training.

## **12. Arab HDTV Group next meeting**

The Group was informed about *ASBU Engineering Committee* recommendation to convene a large Seminar on HDTV in the last quarter of 2009 and wished to hold its next (3<sup>rd</sup>) meeting concurrently with that Seminar.

The Group recommended inviting relevant Corporations, Unions and Companies to this HDTV seminar and organizing an HDTV equipment exhibition that shall host manufacturers and integrators of HDTV equipment used throughout the production, transmission and reception chain.