2nd ITU Inter-regional Workshop on WRC-15 Preparation
Geneva, 12-13 November 2014

Document WRC-15-IRWSP-14/8-E
4 November 2014
English only

African Telecommunications Union (ATU)

REPORT OF THE 2ND AFRICAN PREPARATORY MEETING FOR WORLD RADIOCOMMUNICATION CONFERENCE 2015

(Khartoum, Sudan, 27 – 30 January 2014)

Report 2nd APM for WRC-15.pdf

 Annex 11-1 - Chapter 1 - Mobile and Amatu	 Annex 11-2 - Chapter 2 - Science Issues; 1.1	 Annex 11-3 - Chapter 3 - Aeronautical, Mari
 Annex 11-4 - Chapter 4 - Satellite services; 1	 Annex 11-5 - Chapter 5 - Satellite Regulator	 Annex 11-6 - Chapter 6 - General issues; 2, 4
 Annex 11-7 - Chapter X - Footnotes and Cor		

African Telecommunications Union

REPORT

of the

2nd AFRICAN PREPARATORY MEETING FOR WORLD RADIOCOMMUNICATION CONFERENCE 2015 (2nd APM for WRC-15)

held from

27th to 30th January, 2014

at

Al Salam Rotana Hotel

in

Khartoum, Sudan

January, 2014

1. INTRODUCTION

The African Telecommunications Union (ATU) in collaboration with the National Telecommunications Corporation (NTC) of Sudan organized the 2nd African preparatory meeting in Khartoum from 27th to 30th January 2014 at the kind invitation of the Member State of Sudan to prepare for World Radiocommunication Conference (WRC-15) due to be held in Geneva, Switzerland from 2nd to 27th November 2015.

The objective of the meeting was to:

1. Recall the notables from the 1st African Preparatory meeting for WRC-15 held in Dakar-Senegal in March 2013 (1st APM for WRC-15);
2. Note relevant developments since 1st APM for WRC-15;
3. Note developments within ITU-R for WRC-15; report on the 1st ITU Inter-regional Workshop on WRC-15 preparations; report on the JTG 4-5-6-7 and other study groups;
4. Note views/positions from other regional telecommunications organizations regarding WRC-15 agenda items;
5. Consider the report from the AfriSWoG in order to note and/or adopt the outcomes of the group's 1st meeting (AfriSWoG-1);
6. Consideration of WRC-15 agenda items and development of preliminary views/positions, where possible;
7. Review of the ATU RA-15 and WRC-15 Strategy (Work plan and schedule of meetings); and
8. Capacity building on spectrum and new technologies in the area of mobile and satellite communications.

The meeting was attended by over 170 participants from 30 Member States and countries (Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroun, Comores, Cote d'Ivoire, Djibouti, Gabon, Gambia, Ghana, Guinea, Kenya, Lesotho, Liberia, Malawi, Mauritania, Niger, Nigeria, Rwanda, South Africa, South Sudan, Sudan, Tanzania, Tchad, Uganda, Zambia, Zimbabwe); ITU's Radiocommunications Bureau (BR), EACO, SADC; Three (03) International Regional Telecommunications Organizations (ASMG, CEPT and RCC); Eight (08) Associate Members (Access Partnership, Avanti Communications Group plc, The Boeing Company, Ericsson, GSMA, Intelsat, Qualcomm); Eight (08) Partner organizations and Other interested groups (RASCOM, ITSO, GVF, Commonwealth ITU Group (CIG), ESMT, Kemilinks, Motorola Solutions, IARU Sudan). The full list of participants is attached in **Annex 1**.

2. OPENING CEREMONY

The Director General of the National Telecommunications Corporation of Sudan, **Dr. Izzeldin KAMIL AMIN**, in his opening remarks:

- Extended a warm welcome to participants to the meeting and to Sudan in general;
- Expressed gratitude to ATU General Secretariat for letting Sudan host the meeting;
- Further expressed gratitude also to ITU for the support;
- Pointed Sudan's commitment to solidarity and unity for prudent Africa spectrum management in Africa;
- Indicated that Sudan is a bridge between Arab and African countries and such was happy to present some of the ASMG views on the issues; and
- Thanked everyone and wished the meeting success.

Mr. Ben BA presented opening remarks on behalf of Mr. François RANCY, Director of the Radiocommunications Bureau through which he:

- Briefed the meeting on the preparatory process for WRC-15 and the line-up of the major meetings and activities;
- Congratulated ATU for the success regarding the completion of the GE06 frequency coordination for Sub-Saharan Africa in relation with the BR; and
- Ended by thanking everyone and wishing the meeting success.

The Secretary General of the African Telecommunications Union, **Mr. Abdoulkarim SOUMAILA,** in his opening remarks:

- Welcomed all participants and dignitaries present;
- Thanked the Government of Sudan and the NTC for hosting the meeting;
- Wished everyone success in the year 2014;
- Expressed happiness at the high number of registered participants which he said indicated enhanced support and commitment to ATU activities in particular on WRCs and spectrum matters as well as ICT issues in general;
- Pointed out that the success scored at WRC-12 was due to the support, commitment and cooperation from the membership and partners;
- Stated that the issue of additional spectrum and other issues at WRC-15 need to be fully prepared for in order to achieve positive result at WRC-15;
- Outlined the ATU preparatory process and the holding of the 1st AfriSWoG meeting in November 2013 in Nairobi;
- Said that even when issues may be diverse and sometimes administrations have different positions, common views/positions usually emerge;
- Thanked the ITU-BR continued support as well as other regional telecommunications organizations who sent representatives namely; ASMG, CEPT and RCC; and
- Concluded by wishing the meeting all the success.

The **Hon. State Minister of Science and Telecommunications of Sudan, H.E. Alsadig FADLALLA,** in his opening speech:

- Welcomed all present to meeting and to Sudan in general;
- Expressed gratitude for the trust given to Sudan to host the 2nd APM for WRC-15 and to the ATU Secretary General for his continued efforts in promoting ICTs in Africa;
- Urged African countries to effectively coordinate and progress on the issues of broadband and other issues regarding the WRC-15 agenda items at the meeting;
- Stated that Africa must use its vast human resources to solve her problems;
- Thanked the NTC for organizing the meeting as well as the sponsors; and
- Wished the meeting all the success and declared the meeting open

3. APPOINTMENT OF THE BUREAU

The meeting appointed the following bureau:

- Chairman - Mr. Mustafa ABDELHAFIZ (Sudan)
- Vice Chairman - Engr. Festus Y.N. DAUDU (Nigeria)
- Rapporteurs:
    - Mr. Nizam GOOLAM (Lesotho)
    - Mr. Christian Tuyishime AHORANAYEZU (Rwanda)
    - Mr. Awallou MOUHAMADOU (Cameroon)

4. ADOPTION OF AGENDA AND WORK PROGRAMME

The adopted agenda and work programme of the meeting are annexed in **Annex 2 and 3**, respectively.

5. NOTABLES FROM THE 1ST AFRICAN PREPARATORY MEETING FOR WRC-15 (1ST APM for WRC-15) HELD IN DAKAR- SENEGAL IN MARCH 2013 AND THE RELEVANT DEVELOPMENTS SINCE THEN

The ATU Technical Coordinator, Mr Kezias MWALE, presented the General Secretariat's perspectives of the notables from the 1st APM for WRC-15 and the relevant developments since then, as found in presentation ***PPT1-ATU presentation*** and ***PPT2-ATU presentation***, in which he:

- Recalled the key lessons from WRC-12 noted at 1st APM for WRC-15;
- Further recalled the adoption of the ATU WRC-15 Work Plan and Strategy which he said needed to be reviewed;
- Informed the meeting of the successful conclusion of the GE06 Frequency Plan modifications and frequency coordination exercise adding that the result was a significant factor in the JTG4-5-6-7 settling for 694MHz as the lower edge;
- Further informed the meeting of the operationalization of the African Spectrum Working Group (AfriSWoG);

- Expressed satisfaction at the activeness of the Regional Economic Communities in preparing for WRC-15 having had held at least one regional meeting each;
- Outlined the strategy for participation in the work of the JTG-4-5-6-7 via AfriSWoG;
- Observed that AfriSWoG's could assist in implementation of WRC-12 outcomes for issues that require regional collaboration, such as modernization of maritime systems;
- Further observed that generally and judging from the first ITU Inter-regional workshop on WRC-15 preparations, the ATU region was observed to trail behind other regions in terms of progress in formulating common views/positions;
- Noted that the meeting provided a good bridge between WRC-12 and WRC-15, and
- Further noted that the meeting laid a solid foundation for WRC-15 preparations and hoped that the 2nd APM for WRC-15 was going to build on the success of the first meeting.

6. DEVELOPMENTS WITHIN ITU-R FOR WRC-15 PREPARATIONS

The ITU BR representative, Mr Ben BA, presented the BR's perspectives on the relevant developments for WRC-15 preparations as found in ***PPT3–ITU-BR presentation***, in which he:

- Described the WRC preparatory process in particular the forthcoming WRC-15;
- Provided the current status towards preparation of WRC-15 including work done in different ITU Study Groups especially JTG 4-5-6-7 on WRC-15 Agenda Items 1.1 and 1.2;
- Further provided the website links for various ITU-R resources such as first WRC-15 BR Worshop held in Geneva in December 2013, Study Group reports, and also the preparations by other Regional Telecommunications Organizations;
- Urged African administrations to take note of the ITU calendar and plan their national and regional preparatory events accordingly; and
- Further urged African administrations to actively participate and contribute towards the WRC-15 preparatory work within ITU-R at all levels as important decisions are made from these meetings/activities.

7. VIEWS/POSITIONS OF OTHER REGIONAL TELECOMMUNICATIONS ORGANIZATIONS

The meeting noted the overviews of the RCC, CEPT and ASMG preparatory work and their respective views/positions on WRC-15 agenda items, as follows:

7.1 Regional Commonwealth in the Field of Communications (RCC)

The RCC Representative, **Mr. Andrey MASTERUK**, provided an overview of the RCC's preparatory work for and views on WRC-15 agenda items as found in ***PPT4-RCC presentation***, in which he:

- Outlined the organizational and administrative arrangements of the RCC in particular the Working Group for RA and WRC preparations;
- Highlighted the three underlying principles of RCC in developing positions on WRCs

Agenda Items, namely; *equitable access to radiofrequency spectrum, compatibility between services*, and *providing regulatory and technical provision for development of new technologies*;

- Indicated that while RCC supports allocation of additional spectrum to Mobile Service, there is a need to optimize the use of frequency bands already identified for IMT;
- Pointed out that identification of IMT bands should not present additional constraints to the development of existing services;
- Presented a list of frequency bands which RCC would not support identification for IMT within such bands as they are intensely used and could result in possible unacceptable interference;
- Pointed out that in allocating 694 – 790 MHz to IMT, consideration should be made for protection of BS and ARNS;
- Explained that while RCC supports use of IMT family standards for PPDR networks in the bands earlier identified for PPDR, allocation of new frequency bands for MS to provide PPDR is not supported;
- Indicated that RCC does not support the principle of Agenda Item 1.4;
- Indicated that RCC does not object to allocations proposed in Agenda Item 1.9 subject to compatibility with existing terrestrial and space services and without imposing additional constraints on these services;
- Explained that RCC considers additional spectrum allocation to the MSS in the Earth-to-space and space-to-Earth directions, including the satellite component for broadband applications, including IMT, within the frequency range from 22 GHz to 26 GHz is possible only if the compatibility with existing terrestrial and space services is ensured in the same and adjacent frequency bands (taking into account RR Nos. 5.149 and 5.340 RR), and if such allocations to MSS do not impose additional constraints on the existing services;
- Indicated that RCC does not object to principle of Agenda Item 1.11 provided compatibility with existing services is ensured; and
- Referred all interested in the RCC activities to RCC's website www.en.rcc.org.ru

7.2 European Conference of Postal and Telecommunications Administrations (CEPT)

The CEPT Representative, **Mr. Antonio AZZARELLI**, provided an overview of the CEPT's preparatory work for and views on WRC-15 agenda items as found in ***PPT5-CEPT presentation***, in which he:

- Outlined the CPG composition including its project teams (PTA, PTB, PTC, PTD), meeting schedule and deliverables;
- Stated that on Agenda Item 1.1, CEPT supports harmonized allocations to the mobile service and identification for IMT to facilitate the global roaming and reduction of equipment-cost through economies of scale and provided lists of frequency bands that are suitable, under consideration and those considered not suitable for IMT;
- Stated that on Agenda Item 1.2, CEPT supports to set 694 MHz as the lower edge of the

mobile service allocation and to ensure that channel 48 of digital terrestrial television is protected;

- Pointed that Agenda Item 1.3 is considered to be an issue that needs to be considered at national level by each sovereign member state;
- Indicated that on Agenda Items 1.4, 1.5 and 1.9, CEPT currently supports further studies with a view of ensuring that existing services are protected;
- Further indicated that Agenda Item 1.10 poses sharing difficulties with MS and as such, additional allocation is not supported;
- Stated that CEPT has expressed support for Agenda Items 1.11 and 1.12 and explained that Agenda Item 1.13 is intended to enable communication between spacecrafts and would not pose any restrictions to existing services;
- Further stated that while CEPT recognizes the importance of on-board communications for safe ship operations, the issue could be addressed through efficient usage of existing frequencies and consideration should therefore be made for amendments to RR footnote No. 5.287 and Recommendation ITU-R M.1174-2;
- Pointed that CEPT has expressed support for Agenda Items 1.17 and 1.18, and presented CEPT positions on these and other agenda items;
- Stressed that CEPT does not support any modification to the definitions of fixed service, fixed station and mobile station;
- Referred the meeting participants to various resources from the CEPT websites as follows:
    - General information: http://www.cept.org/ecc
    - CPG page: http://www.cept.org/ecc/groups/ecc/cpg
    - Coordinators: http://www.cept.org/ecc/groups/ecc/cpg
    - CEPT Briefs/ECPs: http://www.cept.org/ecc/groups/ecc/cpg/page/cept-briefs-and-ecps-for-wrc-15

7.3 Arab Spectrum Management Group (ASMG)

The ASMG Representative, **Mr. Jalaleidin GISMELLAH**, provided an overview of the ASMG's preparatory work for and views on WRC-15 agenda items as found in ***PPT6- ASMG presentation***, in which he:

- Outlined the ASMG membership, its management team, working groups and objectives;
- Stated that ASMG meets at least once a year;
- Outlined the mechanism for preparing Arab common proposals (ACPs);
- Provided the ASMG positions as found in ***PPT6- ASMG presentation;***
- Highlighted that ASMG supports setting of the lower edge at 694MHz on AI 1.2;
- Stressed that ASMG does not support any modification to the definitions of fixed service, fixed station and mobile station.

8. CONSIDERATION OF THE REPORT OF AfriSWoG

8.1 Presentation of the report

The Chairman of AfriSWoG, Mr Andrew KISAKA (Tanzania), assisted by Mr. Silulami DOYI (South Africa), Mr. Nigel NAIDOO (South Africa) and Ms. Mutinta CHOLWE (Zambia) presented the report of AfriSWoG as found ***PPT7-AfriSWoG presentation,*** in which he:

- Outlined the background for AfriSWoG establishment, mandate, working methods including the management team;
- Further outlined the main outcomes of the 1st AfriSWoG meeting (AfriSWoG-1) which was held in Nairobi from 12 – 14 November 2013;
- Presented the following:
    1. Three (03) templates developed at AfriSWoG-1 (*Template for requesting a study by AfriSWoG, Template for input contribution for work of AfriSWoG* and *Template for Proposals for ATU WRC-15 Common Views and-or Positions*);
    2. AfriSWoG recommendations on WRC-15 Agenda Items 1.1 and 1.2 developed at AfriSWoG-1;
    3. The draft common input to JTG February 2014 meeting on the issue of OoBE under Agenda Item 1.2; and
    4. The proposed study on Digital Sound broadcasting and Optimization of the GE84 plan adopted at AfriSWoG-1.
- Stated that having had made significant progress on Agenda Item 1.2, focus will now be placed on other agenda items such as the review of UTC (Agenda Item 1.14);
- Expressed desire by AfriSWoG to assist in enhancing the preparations for WRCs and address continental spectrum management challenges in general;
- Suggested utilizing capacities of academia and other research institutions in undertaking various studies so adopted; and
- Kindly urged member states and all countries in general to support AfriSWoG to enable it deliver on its mandate.

8.2 Meeting observations and decisions on the report

The meeting observed and took the following decisions on the report:

- The meeting profoundly appreciated the work of AfriSWoG and observed that this was the first time Africa conducted studies in a collaborative manner;
- The Working Method was **adopted (*Annex 4 refers*)**;
- The study for Digital Sound Broadcasting and Optimization GE84 plan was **adopted (*Annex 5 refers*)**;
- The templates were **adopted** as follows**;**
    1. Annex 6 - Template for requesting a study by AfriSWoG
    2. Annex 7 - Template for input contribution for work of AfriSWoG
    3. Annex 8 - Template for Proposals for ATU WRC-15 Common Views/Positions

- The recommendations on Agenda Item 1.1 and 1.2 were **noted (*Annex 9 refers*)**;
- The draft input to JTG 4-5-6-7 was **adopted in principle (*Annex 10 refers*),** and **instructed** AfriSWoG to finalize the draft input as soon as possible;
- **Urged** all stakeholders to undertake all necessary actions to observe the deadline for submission to the JTG 4-5-6-7;
- **Requested** the ATU General Secretariat to circulate to member states for final endorsement as matter of urgency;

9. CONSIDERATION OF WRC-15 AGENDA ITEMS AND DEVELOPMENT OF AFRICAN PRELIMINARY COMMON VIEWS/POSITIONS

The meeting noted information from two presentations, the Boeing Company and Motorola as follows:

9.1 Boeing Company presentation on Agenda Item 1.17 (Wireless Avionics Intra-Communications (WAIC))

The Boeing representative, **Dr. Mohamed EL AMIN,** made a presentation as found in ***PPT8-Boeing presentation***, in which he stated that:

- WAIC communication is an application of a safety service as defined in RR 1.59 and thus falls under the Aeronautical Mobile (Route) Service (AM(R)S);
- ITU-R WP-5B has determined that the total spectrum requirement for WAIC is 145 MHz and the best suitable is the AM(R)S band 4 200 – 4 400 MHz band;
- Global harmonization and allocation of WAIC frequencies will ensure that WAIC is accepted by default globally via standardization by ICAO;
- Further sharing and compatibility studies on other frequency bands may be necessary;
- WAIC systems are safer in many ways because they reduce cabling and mechanical stress on the wires;
- WAIC technology will benefit the airlines and aerospace industry by reducing aircraft weight thus providing environmental benefits and cost savings to manufacturers and operators;
- WAIC is not meant to replace all the wires but to compliment and provide more reliable redundancy and monitoring capabilities,
- ITU, ICAO, CITEL, APT, CEPT, ATU, ASMG, RCC and aviation groups are all being involved and updated and that ICAO, RTCA and EUROCAE to address the safe incorporation of WAIC systems onto aircraft; and
- WAIC will enhance safety, and not compromise it.

9.2 Motorola Solutions presentation on Agenda Item 1.3 (Broadband Public Protection and Disaster Relief)

The Motorola Solutions representative, Mr. Daniel S. HAMADEH, made a presentation as found in ***PPT9 – Motorola presentation***, in which he urged the meeting and/or African administrations to:

- Develop a positive African position towards the revision of the Resolution 646 under Agenda Item 1.3 which is he said was under "method B" of the current draft CPM text;
- Participate and contribute in the upcoming WP5A meetings;
- Examine the benefits the frequency ranges 694-791/790-862 MHz present as regional/global band for harmonized LTE based PPDR;
- Establish national consensus on Broadband PPDR requirements and reserve a minimum of 2x10 MHz for future Broadband PPDR based on LTE/LTE-A from within the digital dividend spectrum;
- Consider that evolving Broadband PPDR networks cannot be fulfilled with existing spectrum in the range 380-470 MHz due to continued need for narrow band land mobile radio; and
- Realize the socio economic values and cost savings in allocating PPDR spectrum in digital dividend bands next to commercial LTE networks.

9.3 Consideration of WRC-15 agenda items and development of African preliminary common views/positions

The meeting considered all the WRC-15 agenda items based on the compilations of input contributions from sub-regions, administrations, associate members and relevant interested organizations. The result of this consideration was the African preliminary views as contained in the respective annexes as follows:

- Annex 11-1 - Chapter 1 (Mobile and Amateur Issues; 1.1, 1.2, 1.3, 1.4)
- Annex 11-2 - Chapter 2 (Science Issues; 1.11, 1.12, 1.13, 1.14)
- Annex 11-3 - Chapter 3 (Aeronautical, Maritime and Radiolocation issues; 1.5, 1.15, 1.16, 1.17, 1.18)
- Annex 11-4 - Chapter 4 (Satellite services; 1.6, 1.7, 1.8, 1.9.1,1.9.2, 1.10)
- Annex 11-5 - Chapter 5 (Satellite Regulatory issues; 7, 9.1.1, 9.1.2, 9.1.3, 9.1.5, 9.1.8, 9.3)
- Annex 11-6 - Chapter 6 (General issues; 2, 4, 9.1.4, 9.1.6, 9.1.7, 10)
- Annex 11-7 - Chapter X (Footnotes and Consequential Issues; 3, 5, 6, 8, 9.2)

The meeting established two adhoc groups;

1. Adhoc Group on Agenda Item 1.1 to draft text regarding African preliminary views on the bands 470 – 694, 3400-3600, 3600-3800 and 3800-4200MHz. This result of this group is the text on African preliminary view on agenda item 1.1 in Annex 11-1.

2. Adhoc Group on Agenda Item 1.2 to draft CPM text for input contribution to the forthcoming February 2014 JTG 4-5-6-7 meeting for endorsement consideration by administrations. Due to time constraint, the actual draft CPM text was not available. However, the group proposed a way forward as found in ***Annex 12.***

10. REVIEW OF ATU WORK PLAN AND STRATEGY FOR WRC-15

10.1 Consideration of the ATU Work Plan and Strategy for WRC-15

The ATU Technical Coordinator, **Mr. Kezias MWALE**, presented the proposed reviews to the ATU Work Plan and Strategy for WRC-15 as adopted at the 1st APM for WRC-15. The proposals related to the scheduling of the 3rd APM for WRC-15 from the initial January 2015 to **November/December 2014**. Also, the shifting of dates related to items 2 and 3 regarding **Conference Outcome Implementation Strategies** from 30thJune 2013 and 30th July 2013, to **30th June** 2014 and **30th July 2014**, respectively.

10.2 Meeting decision on the proposed reviews of the strategy

The meeting adopted the proposals and thereby established the **January 2014 Revision** of the ATU Work Plan and Strategy for WRC-15 adopted at 1stAPM for WRC-15 ***(Annex 13).***

11. OTHER BUSINESS

11.1 HIPSSA/HCM4A Project Update

Kemilinks representative, **Mr. Hilaire MBEGA**, presented on the update of HIPSSA/HCM4A Project as found ***PPT10-Kemilinks presentation,*** in which he:

- Stated ITU /BDT has sent circular letter DM 336 to all African Sub Saharian countries to re-launch the project.
- Indicated that any administration wishing to be part of the agreement need to complete and sign the "Declaration of Intent form" and send it back before 31 of January 2014 to be included in the HCM4A Agreement;
- Advised that more information can be found at "http://www.itu.int/en/ITU-D/Projects/ITU-EC-ACP/HIPSSA/Pages/Projet_HIPSSA_français.aspx " or contact Mr. IstvánBOZSÓKI Spectrum Management andBroadcasting Division (SBD) ITU/BDT/IEE / +41 22 730 6347 / istvan.bozsoki@itu.int

11.2 Announcement of the Candidature of Mr. Shola TAYLOR for the position of Deputy Director General of ITU by the Member State of Nigeria

Nigeria informed the meeting of the candidature of **Mr. Shola TAYLOR** for the position of ITU Deputy Secretary General at the forthcoming ITU PP 2014 and requested support of his candidature through a statement as found in ***Annex 14***. Further, the meeting was informed that the ECOWAS Council of Ministers on ICTs endorsed his candidature. The meeting welcomed this candidature and encouraged the meeting delegates to inform their various Administrations for support consideration of his candidature.

11.3 Announcement of the Candidature of Mr. Ibrahim SANOU for the renew of his position as Director – BDT of ITU by the Member State of Burkina Faso

Burina Faso informed the meeting of the candidature of **Mr. Brahima SANOU** for renewal of his current position at ITU (ITU Director of the Telecommunications Development Sector) at the forthcoming ITU PP 2014 and requested support of his candidature through a statement as found in ***Annex 15.*** The meeting welcomed this candidature and encouraged the meeting delegates to inform their various Administrations for support consideration of his candidature.

11.4 Upcoming ATU Activities and Events

The ATU General Secretariat brought to the attention of the meeting,the ATU upcoming events and requested active participation. Specifically, the following events were cited:

- 2nd African preparatory meeting for WTDC-14 and ITU PP-14 from **17 to 21 February, 2014** in Lusaka Zambia
- 15th ATU Administrative Council meeting in Cameroon from **22 to 24 April, 2014**
- 3rd Digital Migration and Spectrum Policy Summit, in Nairobi, Kenya from **27 to 29 May, 2014**
- ATU Conference of Plenipotentiaries preceded by Special Session of the Admin Council and Committee of Experts to be held in Zimbabwe from **3 to 11 July, 2014**
- 3rd African preparatory meeting for WRC-15 in Abuja, Nigeria tentatively from **24 to 28 November, 2014**

12. CAPACITY BUILDING ON SPECTRUM AND NEW TECHNOLOGIES - MOBILE AND SATELLITE ISSUES

In line with the agenda and work programme, the meeting took a recess during the morning of 30th January 2014 as the report was being finalized by the meeting bureau. During this period, capacity building on spectrum and new technologies - Mobile and Satellite Issues was conducted by industry experts from GSMA, Ericsson, Motorola Solutions, ITSO, GVF, Intelsat, Avanti, RASCOM and Sudasat. The main points from this activity and associated presentations will be posted on a separate information note on ATU website.

13. DATE AND VENUE OF THE NEXT MEETING

The 3rdAfrican preparatory meeting for WRC-15 (3rdAPM4WRC-15) will be held in **Abuja – Nigeria** from **24** to **28 November 2014** following the acceptance by the meeting of the kind invitation by the Member State of Nigeria.

14. ADOPTION OF REPORT

This report was adopted at about 17:00 Hours on Thursday 30th January 2014 as a true record of the proceedings of the meeting subject to editorial improvements.

15. VOTE OF THANKS

The delegate from Botswana, **Mrs Basebi MOSINYI**, gave the vote of thanks on behalf of the meeting participants in which she:

- Highly appreciated the support and excellent facilities that were availed to the meeting by the organizers, the NTC, under the blessing of the Ministry of Science and Telecommunications of Sudan and the Sudanese government in general;
- Thanked ATU and ITU for organizing the meeting saying it was both timely and very important in the African preparatory work for WRC-15;
- Reiterated that the meeting was success and attributed the success to the full participation of both the resource persons and participants alike;
- Expressed gratitude to all the resource persons for their insightful presentations and interventions; and
- Ended by saying restated gratitude to the President of Sudan, **H.E. Field Marshal Omar Hassan Ahmad Al-Bashir,** the Government and people of Sudan for the wonderful hospitality.

16. CLOSING REMARKS

The meeting Chairman, **Mr. Mustafa ABDELHAFIZ,** in his closing remarks:

- Expressed hope that the meeting bureau managed to deliver its mandate of effectively and efficiently managing the meeting and that all the interests were equally taken into account in a fair manner; and
- Further expressed hope that the ITU posts candidatures; Mr Taylor and Mr Sanou will succeed in their elections.

The ATU Secretary General, **Mr. Abdoulkarim SOUMAILA,** in his closing remarks:

- Hoped that everyone had a nice stay and good experience in Sudan;
- Stated that ATU General Secretariat wants to take events to anyone willing to host them;
- Reminded the meeting that solidarity and the spirit of Africa is key to our success;
- Urged countries to ensure that they attend the ITU PP 14 to support candidates from Africa for the respective ITU posts they are contesting;
- Expressed profound gratitude to the ITU-BR, partners, regional telecomm organizations;
- Further expressed deep gratitude to the meeting organizers and interpreters;
- Thanked the Chairman of the meeting for managing the meeting so well; and
- Wished everyone safe trip back to their respective destinations.

The Director General of the National Telecommunications Corporation of Sudan, **Dr. Izzeldin KAMIL AMIN**, in his closing remarks:

- Acknowledged the extensive work carried out over the four days of the meeting;
- Hoped that the region has enhanced the knowledge of the issues at hand at WRC-15;
- Further expressed hope that all representatives of supporting organizations had enjoyed the meeting and acknowledged their presence and technical assistance;
- Quoted a Sudanese proverb in Arabic which he said translated '*Souls which know each other will come and be together, however, souls which do not know each other will repel and never be together'*;
- Regional organizations such as ATU has the potential of uniting and bringing people of Africa closer together because Africa-to-Africa tourism has failed;
- Hoped that ATU SG will increase the events in various places in Africa in order to facilitate the interaction of Africans among Africans;
- Thanked all involved; organizers, the ATU staff, the NTC staff for their hard work;
- Invited people to consider visiting Sudan particularly in winter when the environment is most pleasant i.e. the months of November to February;
- Wished everyone safe trip home and declared the meeting closed

Appendix 1: List of Annexes

Annex 1 - List of Participants

Annex 2 - Agenda for 2nd APM for WRC-15, 27 - 30 January 2014, Khartoum, Sudan

Annex 3 - Work Programme 2nd APM for WRC-15, 27 - 30 January 2014 Khartoum Sudan

Annex 4 - AfriSWoG Working Methods

Annex 5 - Topic for study - Digital Sound Broadcasting and Optimization of FM broadcasting plan

Annex 6 - Template for requesting a study by AfriSWoG

Annex 7 - Template for input contribution for work of AfriSWoG

Annex 8 - Template for Proposals for ATU WRC-15 Common Views and-or Positions

Annex 9 - AfriSWoG Recommendations on the key issues under WRC-15 AI 1.1 and 1.2

Annex 10 - Working Document on the Input Contribution to the JTG 4-5-6-7 on the OoBE Studies

Annex 11-1 - Chapter 1 - Mobile and Amatuer Issues; 1.1, 1.2, 1.3, 1.4

Annex 11-2 - Chapter 2 - Science Issues; 1.11, 1.12, 1.13, 1.14

Annex 11-3 - Chapter 3 - Aeronautical, Maritime & Radiolocation; 1.5, 1.15, 1.16, 1.17, 1.18

Annex 11-4 - Chapter 4 - Satellite services; 1.6, 1.7, 1.8, 1.9.1,1.9.2, 1.10

Annex 11-5 - Chapter 5 - Satellite Regulatory issues; 7, 9.1.1, 9.1.2, 9.1.3, 9.1.5, 9.1.8, 9.3

Annex 11-6 - Chapter 6 - General issues; 2, 4, 9.1.4, 9.1.6, 9.1.7, 10

Annex 11-7 - Chapter X - Footnotes and Consequential Issues; 3, 5, 6, 8, 9.2

Annex 12 - Report from Ad-Hoc Group on Agenda Item 1.2

Annex 13 - ATU WRC-15 Work Plan and WRC-12 Outcome Implementation Strategy

Annex 14 - Statement by Nigeria on the Candidacy of Mr. Shola TAYLOR for Deputy Secretary General

Annex 15 - Statement by Burkina Faso on the Candidacy of Mr. Brahima SANOU for Director – BDT sector of ITU

Appendix 2: List of referenced presentations

PPT 1- 2ndAPTMforWRC-15 - ATU presentation 1

PPT 2- 2ndAPTMforWRC-15 - ATU presentation 2

PPT 3 - 2ndAPMforWRC-15 - ITU BR presentation

PPT 4 - 2ndAPMforWRC-15 - RCC presentation

PPT 5 - 2ndAPMforWRC-15 - CEPT presentation

PPT 6 - 2ndAPMforWRC-15 - ASMG presentation

PPT 7 - 2ndAPMforWRC-15 - AfriSWoG presentation

PPT 8 - 2ndAPMforWRC-15 - Boeing

PPT 9 - 2ndAPMforWRC-15 - Motorola

PPT 10 - 2ndAPMforWRC-15 - Kemilinks presentation

Appendix 3: List of Input Documents

Input DOC 1 - 2ndAPMforWRC-15 – EACO input contribution

Input DOC 2 - 2ndAPMforWRC-15 – ECCAS input contribution

Input DOC 3 - 2ndAPMforWRC-15 - SADC input contribution

Input DOC 4 - 2ndAPMforWRC-15 - Nigeria input contribution

Input DOC 5 - 2ndAPMforWRC-15 - Sudan input contribution

Input DOC 6 - 2ndAPMforWRC-15 - Guinea (Conakry) input contribution

Input DOC 7 - 2ndAPMforWRC-15 - Guinea (Conakry) input contribution

Input DOC 8 - 2ndAPMforWRC-15 - Algeria input contribution

Input DOC 9 - 2ndAPMforWRC-15 - Boeing (english) input contribution

Input DOC 9b - 2ndAPMforWRC-15 - Boeing (french) input contribution

Input DOC 10 - 2ndAPMforWRC-15 - ITSO input contribution

Input DOC 11 - 2ndAPMforWRC-15 - GSMA input contribution

Input DOC 12 - 2ndAPMforWRC-15 - Qualcomm input contribution

Input DOC 12a - 2ndAPMforWRC-15 - Qualcomm - Annex 1

Input DOC 12b - 2ndAPMforWRC-15 - Qualcomm - Annex 2

Input DOC 12c - 2ndAPMforWRC-15 - Qualcomm - Annex 3

Input DOC 13 - 2ndAPMforWRC-15 - GSMA input contribution

Input DOC 14 - 2ndAPMforWRC-15 - RASCOM input contribution

Appendix 4: List of Information Documents

Info DOC 1 - 2ndAPMforWRC-15 – RCC

Info DOC 2 - 2ndAPMforWRC-15 - Motorola - Annex 1

Info DOC 2 - 2ndAPMforWRC-15 - Motorola - Annex 2

Info DOC 2 - 2ndAPMforWRC-15 - Motorola - Annex 3

Info DOC 2 - 2ndAPMforWRC-15 - Motorola - Annex 4

Info PPT - 2ndAPMforWRC-15 - Agenda Item 1.4 Rapportuer

Appendix 5: List of Working Documents from 1st APM for WRC-15

Working DOC 1 - 1stAPMforWRC-15 - Compilation of (Preliminary) Views-Positions at the Dakar meeting

Agenda Item 1.1	Additional spectrum identification for IMT

EACO:

Based on the current assignment of spectrum in the identified IMT bands and the information available from ITU Study Groups, EAC member states have indicated their views in part C, in respect to additional spectrum allocation to IMT, subject to ongoing ITU studies.

The following bands are supported for IMT:

- **1400-1427MHz**
- **1427-1429 MHz**
- **1429-1452 MHz**
- **2 025-2 110 MHz**

ECCAS:

Les bandes en dessous de 1 GHz pourraient être celles à proposer

SADC:

The use of mobile services, in particular IMT systems, is very important for SADC for the delivery of voice and broadband data services.

The identification of new frequency bands will be supported provided that existing services are protected. Spectrum estimates should be based on ITU-R studies and additional frequency bands identified for IMT should take into consideration:

- The needs of developing nations should be taken into account, including the need for cost effective services for a wide range of user densities and coverage areas (such as rural).
- International harmonization.
- The use of the 470 – 694 MHz band as television white space for broadband services.

Chapter 1 - Mobile and Amateur Issues ---1.1, 1.2, 1.3, 1.4

NIGERIA

470 – 694/698 MHZ: We do not support allocation of this band for IMT as this is reserved for Broadcasting services in Nigeria.

1 300 – 1 527 MHz: Aeronautical and radionavigation services (ARNS) are currently deployed on the frequency band 1 300 - 1 350 MHz in Nigeria. We therefore do not support allocation of this band for IMT

1 695 – 1 710 MHz: Support on-going studies

2 025 – 2 110 MHz: Support on-going studies

2 200 – 2 290 MHz: Support on-going studies

2 700 – 2 900 MHz: This band is used for Aeronautical and Meteorological Services in Nigeria. We therefore do not support its allocation for IMT

3 300 – 3 400 MHz: Support on-going studies

3 400 – 4 200 MHz: The band is heavily used by Satellite services in Nigeria. We therefore do not support new allocation on the band

4 400 – 4 900 MHz: Support on-going studies

4 800 – 5 000 MHz: Support on-going studies

5 350 – 5 470 MHz: Support on-going studies

5 725 – 5 850 MHz: Support on-going studies

5 925 – 6 425 MHz: This band is also heavily used in Nigeria, and therefore we do not support new allocation.

SUDAN:

1.support the new allocations to the IMT

2.exclude the following frequency bands

- 470-694 MHz
- 3 800-4 200 MHz

3. supports the sharing studies in the candidates bands with respect to existing and adjacent services.

Chapter 1 - Mobile and Amateur Issues ---1.1, 1.2, 1.3, 1.4

ALGERIA:
Vu le nombre important des bandes de fréquences candidates et compte tenu du fait que la quantité du spectre des fréquences nécessaire au déploiement des IMT n'a pas été déterminée avec précision et que les études sont toujours en cours, l'Administration algérienne réserves a position définitive sucre point.
Toutefois, il y lieu de préciser qu'elle n'est pas en faveur **pour le moment** pour une attribution au service mobile à titre primaire des bandes de fréquences suivantes :
470 - 694 MHz
1300 – 1350 MHz
1695 – 1710 MHz
2700 – 2900 MHz
3300 – 3400 MHz
3400 – 3600 MHz
4400 – 5000 MHz
5925 – 6425 MHz

GSMA:
To support the studies towards worldwide allocation to mobile and identification to IMT in the following bands:

- 470-694/698 MHz
- 1300-1400 MHz and 1427-1525 MHz
- 2700-2900 MHz
- 3400-3800 MHz

Avanti:
No additional spectrum for terrestrial mobile broadband applications or identification for IMT terrestrial from Ka/Ku/C-band FSS , L-band RNSS, EESS or L/S MSS satellite service bands

ICAO:
To oppose any new allocation to the mobile service in or adjacent to frequency bands allocated to aeronautical services (ARNS, AM(R)S, AMS(R)S) unless it has been demonstrated through agreed studies that there will be no impact on aeronautical services.

Chapter 1 - Mobile and Amateur Issues ---1.1, 1.2, 1.3, 1.4

Inmarsat:

- 3400-4200 MHz should not be considered (again) for identification for IMT.
- The bands 1518-1559 MHz, 1626.5-1660.5 MHz, 1668-1675 MHz are not suitable for identification for terrestrial IMT
- No studies conducted to date on the band 5925-6425 MHz, but FSS use must be protected
- No studies conducted to date on the bands 18.1-18.6 GHz and 27-29.5 GHz but FSS use must be protected

RASCOM:

To be against the allocations of the following C bands to terrestrial mobile services on a co-primary basis: 3400-4 200 MHz, 4 500-4 800 MHz, 5 850- 6425 MHz, 6 725- 7 025 MHz

- Not to support any new studies into these bands and requests the JTG to focus its resources on other frequency bands
- Cohabitation between IMT and satellites services in C band will induce severe damage to satellite
- services and particularly RASCOM services in Africa
- Feasibility of sharing between FSS and IMT has not improved since 2007

ITSO:

For the band 1518-1527 MHz: NOC
For the bands 3400-4200 MHz: NOC
For the band 4500-4800 MHz: NOC
For the band 5725-5925 MHz: TBD
For the band 5925-6425 MHz: NOC

African Preliminary View:

1. **The band 470-694MHz:**
   - To be excluded from bands to be identified for IMT Services as the band planned for DTT in Africa.
2. **The band 3400-3600MHz**:
   - To withhold a view pending the outcome of studies, however, quite a number of African countries (27 countries) have this band already identified for via **RR 5.430A** and have deployed some mobile services.
3. **The band 3600-3800MHz:**
   - To withhold a view pending the outcome of studies, however, the band is widely used by the FSS
   - Algeria and EACO Administrations are not in favour of identification of this band for IMT
4. **The band 3800-4200MHz:**
   - To withhold a view pending the outcome of studies, however, the band is widely used by the FSS
   - Algeria, Sudan and EACO Administrations are not in favour of identification of this band for IMT

Agenda Item 1.2	Second digital dividend (694 – 790 MHz)

EACO:

Issue 1: the refinement of the lower edge: ***694 MHz is supported as the lower edge***

Issue 2: Technical and regulatory conditions applicable to the mobile service concerning the compatibility between the mobile service (MS) and the broadcasting service (BS) specifically the protection of DTT channel 48: ***Support the studies that guarantee the compatibility and protection of DTT channel 48***

Issue 3: Channeling arrangement to adopt for the band 694-790 MHz:

Support a channeling arrangement which permit an efficient use of spectrum and a harmonization to achieve economies of scale and make easy global roaming.

Issue 4: Solutions for accommodating applications ancillary to broadcasting requirements:

Follow ITU studies on the issue

ECCAS:

Les résultats sur les conditions d'utilisation de la bande 694-862 MHz qui seront déterminés par les études de l'UIT sont à adopter

SADC:

- SADC country already supported the use of the 700 MHz band for mobile (IMT) services and will continue to support such use.
- This agenda item will determine the technical and regulatory conditions for use of the 700 MHz band such as lower band limit, OOBE limits, the protection of existing services, etc.
- SADC countries support the retention of the lower band limit (694 MHz) and the alignment of a channel plan based on the Region 3 APT band plan (ITU-R Rec. M.1036 (A5)). As a minimum, the lower duplexer of this plan will be supported.
- SADC supports the adoption of technical and regulatory limits in line with those adopted in Region 3 to maximise economies of scale.

ZIMBABWE:

- Supports band segmentation with boundary at 694MHz.
- Guard band of appropriate size to come from the band immediately above 694MHz.
- Protection of DTT Channel 48 a key priority for Africa.
- DTT spectrum requirements to be accommodated within the band 470 – 694 MHz
- Supports channeling plan that has a mature and ready-to-implement IMT technology and fosters economies of scale to bring the much needed mobile broadband benefits of the band immediately

KENYA; NIGERIA; GABON; SUDAN and COMEROON:
Support the edge to above 694 MHz so as to protect DTT Channel 48

SOUTH AFRICA:
Need to establish a focus group to work on the roadmap in respect of WP 6A, 5D and JTG 4-5-6-7 activities.

SUDAN:
1. Sudan support Lower edge to be at 694mhz
2. Sudan support the planning scenario that overlap APT plan, provide max amount of spectrum &add economic value to equipments.
3. Support the protection of channel 48.
4. Sudan support ge06 provisions for the regulations in the band.

NIGERIA:
It is recommended that the work of WP5D and WP6A responsible for channeling arrangement and spectrum needs of Broadcasting and Mobile Services in addition to studies carried out by JTG4-5-6-7 be followed to consider other channeling arrangements in addition to the options presented in Appendix II.

ALGERIA:
L'Administration algérienne n'est pas en faveur à toute disposition technique ou règlement aire visant à restreindre la protection du service de la Radiodiffusion dans la bande en question
Elle examinera avec soins les résultats des études de partage et de compatibilité entre le service de radiodiffusion et le service mobile (IMT inclus) et suivra de près la définition des paramètres techniques permettant d'assurer la protection du service aéronautique dans la bande 694-790 MHz.

Qualcomm:
- Support for conventional duplex arrangement.
- Cautions that the adoption of CEPT OoBE limits, as liaised from JTG4567 to WP 5D would constrain the operation of IMT at 700MHz. OOBE limits derived from studies using appropriate methodologies such as those used in APT studies (e.g.

statistical, Monte Carlo etc) may provide adequate protection without unacceptable constraints on IMT. (

- Noting WP 5D's working Document Towards a Preliminary Draft New Report addressing Coexistence between different IMT Systems in the UHF Band (Doc. 5D/TEMP/167-E), support the retention of both channeling options (2X30MHz/2X45 MHz, A5) which are based on contributions from African countries to WP 5D, This will provide flexibility for countries wishing to implement combinations of A3/A5 in 700/800MHz.

Information gathered on preliminary views from the 1st Africa Preparation Meeting in Dakar and subsequent sub-regional meetings indicate that some consensus is emerging among African countries around key decisions related to Resolution 232/Agenda Item 1.2:

- Allocation coming into effect immediately after WRC-15
- Lower edge of the allocation at 694MHz
- Protection of Channel 48
- Channeling Plan(s) that would enable full/partial harmonization with APT 700/3GPP Band 28, thus facilitating roaming and economies of scale

This 2nd African Preparatory Meeting offers an opportunity for Administrations to discuss how they can collectively achieve these objectives within the framework of ongoing ITU-R deliberations:

African Preliminary View:

- To support the taking effect of the allocation immediately after WRC-15
- To support setting of the lower band edge at 694MHz
- To support protection use of Channel 48 by UHF DTT
- To support channeling plan adapted to the 694 – 790MHz band that fosters economies of scale and band usage technical parameters in particular the OoBE
- To support partial or full harmonization with the APT Plan and including associated technical parameters such as the OoBE and to prepare a contribution to the upcoming JTG meeting on the issue of OoBE element

Agenda Item 1.3	**Broadband Public Protection and Disaster Relief**

EACO:

- The Harmonization of PPDR frequencies (380-385/390-395 MHz): ***Supports the regional harmonization of PPDR frequencies in order to achieve economies of scale and to facilitate cross border disaster relief operations.***
- to review and revise Resolution 646 (Rev. WRC-12):***Supports ITU-R studies on broadband PPDR with regard to review and revision of Resolution 646(Rev. WRC 12)***

ECCAS:

L'harmonisation mondiale ou régionale du spectre pour l'utilisation des moyens de communications radioélectriques, notamment les applications à large bande est à soutenir

SADC:

SADC is assessing studies on technical and operational issues relating to PPDR and may support the identification and adoption of globally, or as a minimum regionally, harmonised frequency bands for broadband PPDR services while protecting existing services.

SUDAN:

Continue reviewing ongoing studies

NIGERIA:

- We recognize the significance of Broadband LTE PPDR and identify with its need for disaster relief.
- However, a 700 MHz tuning range for PPDR is not recommended as the 700MHz band is intended for IMT services in the future in Region 1.
- Further brainstorming sessions shall be carried out to determine a harmonized PPDR frequency band for Region 1.

Chapter 1 - Mobile and Amateur Issues ---1.1, 1.2, 1.3, 1.4

ALGERIA:

La Résolution 646 (Rév. CMR-12) et les études en coursmont rent qu'il y a une grande tendance pour inclure dans la bande 380-400 MHz les applications large bande de protection du public et des secours en cas de catastrophes (PPDR).

Toutefois, les études réalisées au sein des commissions d'études doivent tenir compte du fait que les besoins en spectre des dites applications peuvent varier d'un pays à un autre et que le choix par un état membre de bandes liées aux applications PPDR relève de la décision souveraine de chaque état membre.
Tout en soutenant la révision de la Résolution 646 (Rév. CMR-12) et reconnaissant la grande importance des applications PPDR et la nécessité de leur attribuer le spectre adéquat, l'Administration algériennes 'oppose à la proposition d'attribuer des sous bandes dans la bande des 800 MHz aux applications PPDR, compte tenu de l'utilisation intensive de cette bande les différents services de radiocommunications.

Motorola:

2x10MHz need to be identified for PPDR in the 700/800MHz band

Africa Preliminary View:

- No specific bands identified for PPDR yet, but administration will continue to follow outgoing studies, and the final decision will be taken after the outcome of studies

Agenda Item 1.4	**Amateur service in the band 5 250 – 5 450 kHz**

EACO:

- spectrum requirements for a secondary allocation to the amateur service within the band 5 250-5 450 kHz: **Following studies that shall determine spectrum requirements for a secondary allocation to amateur service**
- the impact of amateur service to other services currently allocated in the band: **Support studies for protection of existing services in the band indicated in Part E**

ECCAS:

Sous réserve de la position de la communauté aéronautique, les pays de la sous région peuvent soutenir l'attribution de la bande 5250-5450 KHz au service d'amateur à titre secondaire

SADC:

- SADC supports the identification and allocation of spectrum for the amateur service on a secondary basis in the frequency band 5250-5450 kHz while protecting the continued use of the SADC harmonised HF cross-border frequencies in this band i.e., 5170 kHz; 5330 kHz; 5365 kHz (see Annexure G of the SADC FAP 2010).

SUDAN:

This band is heavily used in Sudan. Sudanese administration doesn't support allocation of the band 5 250 - 5 450 KHz under secondary basis for Amateur services for these reasons:

NIGERIA:

- Results of preliminary studies on the proposed band in this agenda item have been inconclusive.
- We however will continue to support on-going studies.

ALGERIA:

Le service d'amateur peut contribuer d'unemanière considérable au sauvetage de la vie humaine. L'examen de la situation des bandes attribuées à ce service montre qu'il a bénéficié par le passé de plusieurs attributions dans différentes bandes du spectre.

Toutefois, iles judicieux de suivre les études surcesujet et d'examiner attentivement l'impactsur les services existants des largeurs qui seront proposées.
L'administration Algérienne pour rait appuyer éventuelle men tune nouvelle attribution au service d'amateurs icelle-ci est justifiée.

ICAO:
To ensure that any allocation made to the amateur service shall not cause harmful interference to the operation of aeronautical systems operating under the allocation to the aeronautical mobile (R) service in the adjacent frequency band 5 450 – 5 480 kHz in Region 2.

IARU:
International Amateur Radio Union (IARU) fully supports the possible additional allocation in this band.

African Preliminary View:

- To support the ongoing studies, and take a view after considering the results of the studies and to take into account the protection of existing services in the band

Agenda Item 1.11	**Additional spectrum to Earth exploration-satellite service in the band 7 - 8 GHz**

EACO:
Support compatibility studies between EESS and existing services in the band indicated in Part E

ECCAS:
Soutenir cette attribution qui permettra de combiner l'émission et la réception dans un seul et même transpondeur, augmenter l'efficience et réduire la complexité des satellites

SADC:
- Whereas SADC could support a primary allocation for EESS (Earth-to-space) in this frequency range, current and future FS systems operating in these frequency bands must be protected.
- PFD limits for the protection of FS must be determined.

SUDAN:
Sudan support not to allocate a primary allocation to the Earth exploration-satellite service (Earth-to-space) in the 7-8 GHz range
- Continue following the current studies
- Prepare proposal to WP 7B to include NOC method in the CPM text.

NIGERIA:
Nigerian administration does not support the extension for 7-8GHz due higher unwanted emissions in the range of 71dB, but support further research to be conducted on the viability of extending the lower frequency band given

ALGERIA:
Des résultats des études réalisées, ilres sortque la gamme 7-8 GHz est très utilisée par les services de Terre, et en particulier, par le service fixe. Par conséquent, l'Administration algérienne n'est pas en faveur, pour le moment, à une attribution dans la gamme en question et suit de prés les études en cours, notamment, celles se rapportant à la distance de protection.

African Preliminary view:

- Considering that the band is heavily used in Africa, the band 7-8GHz is not supported for identification for EESS, however to await the results of compatibility and sharing studies and reconsider the view.

******

Agenda Item 1.12	**Spectrum extension to Earth exploration-satellite service in the 10 GHz band**

EACO:

Support compatibility studies between EESS and existing services in the band indicated in Part E

ECCAS:

Favorable à une attribution à l'échelle mondiale

SADC:

SADC supports the extension of the existing EESS (active) allocation (9300-9900 MHz) by up to 600 MHz provided that existing systems and services operating in the frequency bands 8700-9300 MHz and 9900-10500 MHz are protected.

SUDAN:

Support not to extent the current worldwide allocation to the Earth exploration-satellite (active) service. **Reason:** The proposed range is heavily used by the terrestrial services.

NIGERIA:

Support the extension and urged all African countries to support. It is just a matter of selecting the most appropriate option i.e. either:

- *8 700-9 300 MHz*
- *9 900-10 500 MHz or*
- *9 000 – 9 300 MHz plus 9 900 – 10 200 MHz*

Nigeria supports allocation in the understated bands because it will impact positively by having a separate channel for Telemetry, Tracking and Command (TT&C) requirement. The 600MHz extension should be from 9000-9300MHz and 9.9-10.2 GHz because this gives lower unwanted emissions of 9dB or 2dB compared to extension on the lower frequency band of 8700-9300MHz which gives unwanted emissions in the range of 71dB. We support further studies on these frequency bands

ALGERIA:

L'Administration algérienne n'appuie pas l'extension de la bande actuellement attribuée au service d'exploration de la terre par satellite (active), compte tenu de l'utilisation actuelle par les service de terre des bandes proposées et attend la confirmation des résultats des études UIT-R engagéessurce point de l'ordre du jour.

Chapter 2 - Compilations [Science Issues --- 1.11, 1.12, 1.13, 1.14]

ICAO:

To oppose any allocation to the Earth exploration-satellite service in the frequency band 9 000 – 9 200 MHz unless:

- It can be demonstrated through agreed studies that there will be no impact on aviation use.
- no additional constraints are placed on the use of the frequency band by aeronautical systems

No change to Nos. 5.337, 5.427, 5.474 and 5.475.

AFRICA PRELIMINARY VIEW:

- Specific sub-bands in 10GHz identified for EESS to be determined after reviewing the outcomes of ongoing studies on compatibilities issues.

******

Agenda Item 1.13	**Space vehicles communicating with orbiting manned space vehicle**

EACO:

- Removal or relaxation of the 5 km distance limitation without modifying the current pfd limits; **Support studies that will guarantee the protection of existing services in the band 410-420 MHz in line with RR No. 5.268**
- Use of the 410-420 MHz band for SRS (space-to-space) systems beyond extravehicular activities; **Support studies that will guarantee the protection of existing services in the band 410-420 MHz in line with RR No. 5.268**

ECCAS:
Opter pour la protection des utilisations actuelles dans la bande 410-420 MHz mais encourager les Universités à se pencher sur le sujet dans le cadre des projets structurants pour fixer une densité de puissance surfacique pouvant garantir cette protection si la distance 5 Km est modifiée.

SADC:
SADC could support increasing the distance limitation applicable to extra-vehicular activities for orbiting manned space vehicles as contained in 5.268, provided that the use of the band 410-420 MHz for current and future mobile systems are protected.

SUDAN:
1-Sudan support the protection of the terrestrial services within the band410-420mhz
2-Sudan continue reviewing the consideration subject to the results of space research service (space-to-space) studies for allowing or removal of the 5 km distance limitation.

NIGERIA:
Nigeria does not support the increase in the 5 km distance limitations but supports further studies to be conducted

ALGERIA:
L'Administration algérienne soutient la suppression de la limite de la distance d'utilisationactuelle (5 Km) avec maintien de la valeur limite de la puissance surfacique qui permetd'assurer la protection de stations terrestres opérées par dans la bande 410-

420 MHz par les services fixes et mobiles, conformément au 5.268.
Par ailleurs, elle continuera à suivre les études de partage engagées au sein du groupe de travail 7B relatives à ce point de l'ordre du jour.

AFRICAN PREMINARY VIEW:

- Support the continuation of ongoing studies, and the final position to be taken after reviewing the outcome of ongoing studies, but taking into account the protection of existing services in the band of interest.

******

Agenda Item 1.14	**Review of coordinated Universal Time (UTC)**

EACO:
Supports the studies on feasibility of achieving a continuous reference time-scale

ECCAS:
Cette modification de l'échelle de temps pourrait soutenue.

SUDAN:
Continue reviewing ongoing studies on the feasibility of achieving a continuous reference time-scale, whether by the modification of coordinated universal time (UTC) or some other method, and take appropriate action, in accordance with Resolution 653

NIGERIA:
Nigeria supports the implementation of the new reference time scale based on Method A (the following) as we will be taking advantage of the new time scale.

- Stop the insertion of leap seconds in UTC no less than five years after the date of entry into force of the Final Acts of the WRC-15.
- This should allow for an adequate period of time for those legacy systems reliant on the use of leap seconds to adapt to the change in
  UTC.

ALGERIA:
L'Administration algérienne soutient les études actuelles réalisées au sein du groupe de travail ***7A*** et s'intéresse à l'impact d'unetelle modification sur les services. Elle suivra de prés les travaux en cours sur le sujet.

AFRICAN PRELIMINARY VIEW:

- To continue following the ongoing studies, and the final position to be taken when studies are completed.

******

Agenda Item 1.5	Unmanned aircraft systems (UAS)

EACO:

- Technical, regulatory and operational requirements for the operation of UAS using FSS Bands: ***Support studies that will determine technical, regulatory and operational requirements for the operation of UAS using FSS Bands taking into account the safety aspects of radionavigation and other safety services.***
- Sharing and compatibility of the use of UAS in FSS bands with services already having allocations in those bands: ***Support studies that will ensure sharing and compatibility of the use of UAS in FSS bands with services.***

ECCAS:

Favorable à cette utilisation des bandes visées du point de l'ordre du jour.

SADC:

SADC could support the use of FSS frequency bands for CNPC links for UAS provided that the current and future use of FSS systems are protected, and only if studies demonstrate that the requirements of aviation authorities are also satisfied.

SUDAN:

Review the current studies with focus on the frequency bands which allocated to fixed satellite service and not subject to Appendices 30, 30A and 30B, and protect the existing services.

NIGERIA:

No change. However, Nigeria will support the proposal if the result of the studies satisfy ICAO safety requirements in terms of

- system availability
- coordination status/methods and
- ensuring protection of existing services

ALGERIA:
La CMR-12 a fait bénéficier les systèmes d'aéronef sans pilote (UAS) d'attributions additionnelles. L'Administration algérienne souligne la nécessité de protéger les services existants dans les bandes de fréquences en question en déterminant les dispositions réglementaires, techniques et opérationnelles nécessaires à l'utilisation sûre des bandes de fréquences attribuées du service fixe par satellite par les UAS.
Plus particulièrement, Elle est d'avisque l'utilisation des liaisons du SFS pour la liaison CNPC entre les satellites géostationnaires et les systèmes UAS dans les espaces aériens non réservés ne doit pas imposer des contraintes supplémentaires, nigêner le développement du service fixe par satellite et les autres services primaires.

ICAO:
In order to support the use of FSS systems for UAS CNPC links, the technical and regulatory actions identified by studies under Resolution 153 (WRC-12) must satisfy the following conditions:
1. That the technical and regulatory actions should be limited to the case of UAS using satellites, as studied, and not set a precedent that puts other aeronautical safety services at risk.
2. That all frequency bands which carry aeronautical safety communications need to be clearly identified in the Radio Regulations.
3. That the assignments and use of the relevant frequency bands have to be consistent with article 4.10 of the Radio Regulations which recognizes that safety services require special measures to ensure their freedom from harmful interference.
4. Knowledge that any assignment operating in those frequency bands has been successfully coordinated under article 9 of the radio regulations (e.g. any caveats placed on that assignment have been addressed and resolved).
5. That all assignments used by satellite systems for the provision of UAS CNPC links are registered with favorable findings in the master international frequency register.
6. That interference to systems is reported in a transparent manner and addressed in the appropriate timescale.
7. That realistic worst case conditions with the inclusion of a safety margin can be applied during compatibility studies.
8. That any operational considerations for UAS will be handled in ICAO and not in the ITU.

Inmarsat:
Inmarsat supports studies to develop regulatory provisions to enable the operation of UAS in FSS networks, subject to compatibility with other FSS applications.

AFRICAN PRELIMINARY VIEW:

- To support continuation of ongoing studies, and the position to be taken after the outcome of studies.

Agenda Item 1.15	Spectrum demands for on-board stations in maritime mobile service

EACO:
Support ongoing studies with emphasis on efficient usage of the existing frequencies for on-board communications, and the protection of existing services.

ECCAS:
soutenir toutes les actions visant à améliorer et développer les stations de communication à bord notamment l'identification de canaux additionnels en ondes métriques dans les bandes attribuées au service mobile maritime.

SADC:
SADC could support additional UHF channels for on-board communications provided that existing services are protected (in particular coastal countries could be affected although on-board communications could also be used on dams and rivers).

SUDAN:
1. to review footnote no.5.287 for the use of the band 457.525,457.550, 457.575,467.525,467.550.467.575 MHz, 457.5375, 457.5625, 467.5375 and 467.5625 MHz
2. Sudan is reviewing the current studies

NIGERIA:
Nigeria does not support new allocation as the band is already identified for IMT.

ALGERIA:
Les études relatives à ce point sont toujours en cours. Il est à souligner que la satisfaction de ce nouveau besoin en spectre doit s'appuyer sur évaluation précise de l'encombre mentou de l'insuffisance des canaux actuellement autorisés pour les stations de communication de bord du service mobile maritime conformément au 5.287.
L'Administration algérienne préfère attendre la finalisation des études en cours.

AFRICAN PRELIMINARY VIEW:
- Support ongoing studies, and final decision to be taken after the availability of the results of the studies.

Agenda Item 1.16	**Automatic Identification Systems (AIS)**

EACO:

- Modification to RR including possible spectrum allocations, to enable new AIS terrestrial and satellite applications: ***Support ongoing studies on possible modification to RR including possible spectrum allocations, to enable new AIS terrestrial and satellite applications***
- Additional or new applications for Maritime within existing service allocations: ***Support studies on the identification of additional or new applications for Maritime within existing service allocations***
- Potential regulatory actions to accommodate emerging maritime radiocommunication requirements: ***Supports studies on potential regulatory actions to accommodate emerging maritime radiocommunication requirements***

ECCAS:

Compte tenu de ceque les fréquences additionnelles devraient satisfaire les nouveaux besoins d'exploitation des AIS pour les communications de terre et par satellite, nous pouvons être favorables à cette nouvelle attribution

SADC:

- SADC could support the identification of additional spectrum for AIS provided that existing services are protected.
- SADC could also support additional or new applications for maritime radiocommunications within existing maritime mobile and mobile-satellite service allocations considering the potential benefits this could bring to the maritime industry, provided that existing services are protected.

SUDAN:

1. Sudan is support the improvement of the AIS system.
2. Reviewing ongoing ITU-R studies.

NIGERIA:

In view of the importance of AIS in maritime operation for tracking and monitoring of vessels, also considering that THE TWO CHANNELS ALREADY in use are getting congested, Nigeria supports spectrum allocation for possible new AIS technologies. Nigeria supports Method A, i.e. splitting of existing Automatic Identification System (AIS) channels to 4 channels. Two (2) of the channels are to be dedicated to Application Specific Messages (ASM) with effect from 1st January 2019.

ICAO:
To ensure that any change to the regulatory provisions and spectrum allocations resulting from this agenda item does not adversely impact on the capability of search and rescue aircraft to effectively communicate with vessels during disaster relief operations.

ALGERIA:
L'Administration algérienne est favorable pour la finalisation des études engagées au niveau de l'UIT-R relatives aux dispositions réglementaires de manière à satisfaire les besoins des systèmes AIS et améliorer la sécurité maritime sans pour autant porter préjudice ou imposer des contraintes supplémentaires aux systèmes des services exploitant ses canaux .

AFRICAN PRELIMINARY VIEW:

- Africa recognize the importance of AIS, and support any allocation improving AIS, however specific bands to identified after the availability of results of ongoing studies.

Agenda Item 1.17	**Wireless Avionics Intra-Communications (WAIC)**

EACO:

- Possible regulatory actions, including appropriate aeronautical allocations, to support the implementation of WAIC systems: ***Supports studies on Possible regulatory actions, including appropriate aeronautical allocations, to support the implementation of WAIC systems***
- Spectrum requirements needed to support WAIC systems. ***Supports studies on Spectrum requirements needed to support WAIC systems.***
- Protection requirements for systems operating in accordance with existing allocations: ***Supports studies on protection requirements for systems operating in accordance with existing allocations.***

ECCAS:
soutient l'attribution d'une bande de fréquences appropriée pour les Laïcs, sous réserve des résultats des études de partage

SADC:

Whereas SADC may support the identification of bands and associated regulator positions pertaining to the implementation of WAIC, protection of existing systems and services must be ensured, also when new bands are identified.

SUDAN:
Sudan is reviewing the current studies and working wireless avionics intra-communications (WAIC) with the aeronautical bands.

GHANA:
Support any additional aeronautical mobile (route) service allocation required to facilitate the implementation of WAIC, provided technical studies show that WAIC systems will not cause harmful interference to existing or planned aeronautical systems in the aeronautical bands.

NIGERIA:
We recognize the importance of Wireless Avionics Intra-communication (WAIC) and support the proposal to use 4200-4400 MHz on the condition that confirmed study reports meet spectrum and regulatory requirements. WAIC systems utilize radio communications between two or more stations on-board a single aircraft supporting the safe operation of the aircraft and its systems.

ALGERIA:
Les bandes de fréquences concernées par les études de l'UIT-R sont : 4200-4400 MHz ; 5350-5470 MHz ; 13.25-13.4 GHz et 15.4-15.7 GHz. Ces études ont notamment montré que le partage pour rait être concluant dans la bande 4200 – 4400 MHz. L'Administration algérienne considère que compte tenu du fait que les études de partage et de compatibilité ne sont pas arrivées à terme et de l'exploitation actuelle des bandes en question par les services fixe par satellite et de radiodiffusion, ilserait judicieux de suivre attentivement les études avant d'arrêteras position finale.

ICAO:
To support any necessary additional aeronautical mobile (route) service allocation required to facilitate the implementation of WAIC, provided technical studies show that WAIC systems will not cause harmful interference to existing or planned aeronautical systems in the aeronautical bands.

Boeing:
Fully support any additional aeronautical mobile (route) service allocation required to facilitate the implementation of WAIC, provided technical studies show that WAIC systems will not cause harmful interference to existing or planned aeronautical systems in the aeronautical bands. Boeing belives WAIC would not compromise safety but enhance it.
• WAIC communication is considered an application of a safety service as defined in RR 1.59;
• WAIC is an application of the Aeronautical Mobile (Route) Service (AM(R)S);
• ITU-R WP-5B has determined that the total spectrum requirement for WAIC is 145 MHz;
• Support a primary allocation to the AM(R)S in the frequency band 4 200 – 4 400 MHz, limited to the use by WAIC systems.

AFRICAN PRELIMINARY VIEW:
- Views WAIC communication as an application of a safety service of the Aeronautical Mobile (Route) Service (AM(R)S).
- To support the identification of 145 MHz of frequency spectrum under the AM(R)S, for the harmonized usage of WAIC.
- To support a primary allocation to the AM(R)S in the frequency band 4 200 – 4 400 MHz, limited to the use by WAIC-systems.
- To support further sharing and compatibility studies on other frequency bands as necessary.

Agenda Item 1.18	Automotive applications on the 77.5 – 78 GHz

EACO:
Supports the primary allocation and protection of incumbent services.

ECCAS:
Conseilleune attribution en secondaire à ce service.

SADC:
SADC supports the allocation to radiolocation service on a primary basis in this band to enable automotive short-range high-resolution radar operations and considering the benefits these systems could bring to road safety.

SUDAN:
1. Sudan supports a primary allocation to the radiolocation service for automotive applications in the 77.5-78 GHz band .
2. Reviewing current sharing studies and regulatory provisions in the 77.5-78 GHz band
3. Also reviewing the compatibility studies with the neighboring bands 76-77.5 GHz and 78-81 GHz.

NIGERIA:
Two methods to satisfy AI 1.18. Methods A and B. Nigeria supports Method B because it has an added advantage for future developments of short range high resolution radar to automotive applications while taking into account the need to protect existing services in the band

ALGERIA:
L'Administration Algérienne est favorable à une attribution primaire au service de radiolocalisation dans la bande 77,5-78 GHz, limitée aux radars des véhicules, dans le casoù les études confirment la possibilité de coexistence avec les services existants. L'harmonisation des fréquences pour ces applications à l'échelle mondiale constituera un avantage en termes d'efficacité d'utilisation du spectre.

AFRICAN PRELIMINARY VIEW;
- To support the primary allocation of band 77.5-78GHz to automotive applications

Chapter 4 - Compilations [Satellite services---1.6, 1.7, 1.8, 1.9.1,1.9.2, 1.10]

Agenda Item 1.6	**Additional spectrum to fixed-satellite service in the band 10 – 17 GHz**

EACO:

Supports studies to find possible additional primary allocations to the fixed-satellite service (Earth-to-space and space-to-Earth) of250 MHz in the range between 10 GHz and 17 GHz in Region 1 and protection of existing services in the identified bands.

ECCAS:

Les résultats des études de l'UIT-R permettront de prendre position en tenant compte des utilisations nationales des bandes visées. Toutefois, les bandes à éviter sont : 10 GHz, 12 GHz, 14/15 GHz et 18 GHz en raison de leur forte utilisation pour les liaisons capillaires urbaines (Liens entre BTS)

SADC:

Opening new bands for FSS (Ku-band) may provide additional space segment capacity, which could be beneficial for the SADC region.

SUDAN:

- Sudan is continue reviewing studies
- Emphasis protestation of the existing services and not to impose any restrictions to the existing services in the candidate bands.

NIGERIA:

Nigeria supports new allocation of the 250 MHz in the bands 10-17 GHz for FSS applications provided it doesn`t interfere with existing frequency bands listed below for terrestrial microwave link 10.168-11.685, 12.765-13.227 & 14.417-15.341 GHz and 13.25-13.4GHz & 15.4-15.7 GHz for aviation.

Chapter 4 - Compilations [Satellite services---1.6, 1.7, 1.8, 1.9.1,1.9.2, 1.10]

ALGERIA:
L'Administration algérienne examine avec attention la question de l'attribution de 250 MHz au service fixe par satellite dans la gamme 10 – 17 GHz. Elle est d'avis que le choix des portions de spectre pour cette attribution doit se faire en garantissant la protection des services existants et en leur évitant des contraintes supplémentaires.
A ce titre, elle suit de près les études de partage et de compatibilité au sein des groupes de travail concernés et considère qu'il serait judicieux que l'attribution additionnelle envisagée corresponde à une extension dans les bandes déjà attribuées au SFS.

Avanti:
It would be useful for Region 1 (e.g. in Africa) countries to obtain additional 250 MHz bandwidth as primary allocations between 10 GHz and 17 GHz for FSS satellite services to support new GEO satellite systems.

SES:
Ku band is key to addressing consumer market directly due to small receiver antennas. Urges African countries to support the primary allocation 250MHz in the range between 10 GHz and 17 GHz in Region 1.

ICAO:
To oppose any new fixed satellite service allocation unless it has been demonstrated through agreed studies that there will be no impact on aviation use of the relevant frequency band.

African Preliminary View

- Africa supports allocation in the band 10-17GHz for FSS, but existing bands utilization should be protected, and specific bands will be identified after studies are completed

Agenda Item 1.7	**Fixed satellite service in the band 5 091 – 5 150 MHz**

EACO:
Supports studies on technical and operational issues relating to sharing of this band between new systems of the aeronautical radionavigation service and the FSS providing feeder links of the non-GSO systems in the MSS (Earth-to-space).

ECCAS:
Attendre les résultats des études de l'UIT-R avant d'émettre un avis

SADC:
SADC may support the proposed studies in the use of this band between the allocated services.

SUDAN:
Sudan reviewing the current studies on assessment of the coexistence between the new systems of aeronautical radionavigation and fixed-satellite service (Earth-to-space) in the band 5 091-5 150.

NIGERIA:
Nigeria supports the co-existence of the FSS in the band 5091-5150 MHz provided it does not interfere with the existing Microwave Landing System operating in the band 5031-5090 MHz

ALGERIA:
L'Administration algérienne est pour le suivi des études actuelles visant à définir la possibilité de coexistence entre les nouveaux systèmes du service radionavigation aéronautique, le service mobile aéronautique et le service fixe par satellite (T-E) dans la bande de fréquences 5 091 – 5 150 MHz.

ICAO:
Support the removal of date limitations on the fixed satellite service (FSS) allocation in the frequency band 5091 – 5150 MHz subject to:

• the retention of the aeronautical protections contained in Resolution 114 (WRC-12).

• improving the flexibility for managing the allowed FSS satellite noise temperature increase by the aeronautical mobile (R) and aeronautical radionavigation services operating in the band 5 091-5 150 MHz.

Inmarsat:
Supports in principle efforts to improve the satellite coordination process.

African Preliminary view:

- To await the results of the studies before taking a view/position

Agenda Item 1.8	Earth stations located on board of vessels

EACO:

- Review the provisions relating to ESVs which operate in the FSS in the uplink bands 5925-6 425 MHz and 14-14.5 GHz: ***Follow up studies on review of the provisions relating to ESVs which operate in the FSS in the uplink bands 5925-6 425MHz and 14-14.5 GHz***
- Possible modifications to Resolution 902 (WRC-03) in order to reflect current ESV technologies and technical characteristics that are being used or planned to be used, while protecting the other services: ***Follow up studies on modifications to Resolution 902 (WRC-03) in order to reflect current ESV technologies and technical characteristics that are being used or planned to be used, while protecting the other services***

ECCAS:
Il n'y a pas d'inconvénient à soutenir les nouvelles dispositions qui tiennent compte des évolutions technologiques. Toutefois, des délais de transition doivent être accordés pour tenir compte de l'amortissement des systèmes existants.

SADC:

SADC will support revisions to Res. 902 (WRC-03) and continuation of studies of possible alternative approaches in order to reflect the current ESV applications provided that PTP links are protected.

SUDAN:
Review the current studies and support consideration of the review of the provisions relating to earth stations located on board vessels, operating in the fixed-satellite service in the uplink bands 5 925-6 425 MHz and 14-14.5 GHz, in accordance with Resolution 909 (WRC-12).

ALGERIA:
L'Administration algérienne suit attentivement les travaux sur ce point et est pour l'examen des dispositions réglementaires applicables aux stations terriennes à bord des navires dans les liaisons montantes (5925- 6425 MHz et 14-14,5 MHz. Elle estime qu'il est primordial de garder les distances de séparation telles qu'elles sont actuellement et prévoir un délai suffisant pour la mise

en application de la décision que sera prise par le CMR-15.

To put a reasonable time of implementation after the decision that will be taken by WRC-15

BENIN:
Agreement of administrations should be requested before any implementation decision is taken.

Africa Preliminary view:

- Issue 1: Review of the provision related to ESV.
- Issue 2: Modification of Res.902 (WRC-03)
- To support review and modification of resolutions, however the actual review and modification to be decided at any appropriate time.
- To consider the various options at an appropriate time in particular after the results of the studies

Agenda Item 1.9.1	**Additional spectrum to fixed-satellite service in the band 7 and 8 GHz bands**

EACO:

- Possible new allocations to the fixed-satellite service in the frequency bands 7 150-7 250 MHz (space-to-Earth) and 8 400-8 500 MHz (Earth-to-space): ***Support ongoing studies and protection of existing services***
- Regulatory studies in order to enable compatibility with systems of other services: ***Support ongoing studies and protection of existing services***

ECCAS:

S'opposer à toute attribution additionnelle si les résultats des études de l'UIT-R établissent qu'il y 'aura une incidence négative sur les réseaux terrestres dans les bandes 7150-7250 MHz et 8400-8500 MHz

SADC:

SADC supports the on-going ITU-R studies with a view of making a new allocation to the FSS in the bands 7 150-7 250 MHz ("L7") (space-to-Earth) and 8 400-8 500 MHz ("U8") (Earth-to-space) and a new allocation to the MMSS in the bands 7 375-7 750 MHz (space-to-Earth) and 8 025-8 400 MHz (Earth-to-space), on condition that no undue constraints are imposed to the services already allocated in these frequency bands. In addition SADC also supports the application of pfd "hard limits" in Article 21 (see No. 5.461) for the FSS (space-to-Earth) allocation.

SUDAN:

Support not to allocate new allocations to the fixed-satellite service in the frequency bands 7 150-7 250 MHz (space-to-Earth) and 8 400-8 500 MHz (Earth-to-space). Reason: these two bands are heavily used by the fixed services

Continue following ongoing studies in WP 4A.

GUINEA:

Pending the results of ongoing studies, Guinea is not in favour of the additional allocation of these bands to other services because these are already widely exploited by the fixed and mobile services land.

Chapter 4 - Compilations [Satellite services---1.6, 1.7, 1.8, 1.9.1,1.9.2, 1.10]

NIGERIA:
Nigeria does not support the new allocation to the frequency bands 7 150-7 250 MHz (space-to-Earth) and 8 400-8 500 MHz (Earth-to-space) due to heavy usage of existing terrestrial microwave links in the range 7 121-7 737 MHz and 8 286 – 8 488 MHz

ALGERIA:
Considérant que les bandes de fréquences 7 150-7 250 MHz et 8 400-8 500 MHz sont intensivement utilisées en particulier par le service fixe de terre, l'Administration algérienne exprime son objection à une nouvelle attribution au service fixe par satellite dans les bandes en question.

African Preliminary View:

- Not in favour of the allocation of this band because of the heavy usage in Africa of terrestrial services in this band, however, when the studies are complete, the region may reconsider this view.

Agenda Item 1.9.2	**Additional spectrum to maritime-mobile satellite service in the 7 and 8 GHz bands**

EACO:

- Possible new allocations to the maritime-mobile satellite service in the frequency bands 7 375-7 750 MHz and 8 025-8 400 MHz: ***Support ongoing studies and protection of existing services***
- Regulatory studies in order to enable compatibility with systems of other services: ***Support ongoing studies and protection of existing services***

ECCAS:

Le refus de l'introduction du service mobile par satellite dans les bandes 7 375-7 750 MHz et 8 025-8 400 MHz, pourrait être indiqué

SADC:

SADC propose the adoption of appropriate pfd "hard limits" in Article 21 see No. **5.461**) for the space-to-Earth allocation.

SUDAN:

1. Support not to allocate the bands 7 375-7 750 MHz and 8 025-8 400 MHz to the maritime-mobile satellite service.
2. Continue following the current studies in WP 4C

GUINEA:

Pending the results of ongoing studies, Guinea is not in favour of the additional allocation of these bands to other services because these are already widely exploited by the fixed and mobile services land.

NIGERIA:

Nigeria does not support new allocation in the bands 7 375-7 750 MHz and 8 025-8 400 MHz to the maritime-mobile satellite service and additional regulatory measures due to existing remote sensing satellite downlinks in the range 8 115.8 - 8 284.2 MHz

Chapter 4 - Compilations [Satellite services---1.6, 1.7, 1.8, 1.9.1,1.9.2, 1.10]

ALGERIA:

Les bandes de fréquences 7 375-7 750 MHz et 8 025-8 400 MHz étant intensivement utilisées en Algérie par le service fixe de terre, l'Administration algérienne n'est pas favorable à l'attribution des bandes en question au service mobile maritime par satellite.

African Preliminary View:

- Not in favour of the allocation of this band because of the heavy usage in Africa of terrestrial services, however, when the studies are complete, the region may reconsider this view.

Agenda Item 1.10	**Additional spectrum to mobile satellite service in the band 22 - 26 GHz**

EACO:

- Additional allocations to MSS within 22-26GHz band: ***Support ongoing studies to identify new allocations to MSS in 22-26 GHz band***
- Protection of existing services within the identified bands: ***Support protection of existing services***

ECCAS:

En attendant l'identification des bandes adéquates, il serait important de soutenir toute initiative qui pourrait résulter des études visant à attribuer des portions du spectre entre 22 GHz et 26 GHz au service mobile par satellite

SADC:

SADC should support the study and identification of spectrum for MSS for broadband applications, including for IMT, in this frequency range considering the potential benefits such systems could bring the region. At the same time, the current and future use of the 23 GHz and 26 GHz frequency bands should be protected.

SUDAN:

Sudan administration support not to allocate the frequencies of the bands 22 GHz to 26 GHz to the mobile-satellite service.
Reason: most frequencies of the band 22 GHz to 26 GHz are allocated to the fixed and mobile service on a primary basis. Continue following the current studies in WP 4C.

NIGERIA:

Nigeria does not support additional spectrum allocations for the mobile-satellite service in the Earth-to-space and space-to-Earth directions, including the satellite component for broadband applications, and International Mobile Telecommunications (IMT), within the frequency range from 22 GHz to 26 GHz due to existing terrestrial microwave assignments in the range 21.2275-23.5725 GHz and 24.5630 – 26.4380 GHz. 24.25–24.65 GHz for aviation.

Chapter 4 - Compilations [Satellite services---1.6, 1.7, 1.8, 1.9.1,1.9.2, 1.10]

ALGERIA:

La gamme 22-26 GHz est utilisée principalement et intensivement par les stations des services fixe et mobile de terre à titre primaire. La préoccupation première de l'Administration algérienne est la protection de ces services.

Elle n'appuie donc pas une attribution additionnelle au service mobile par satellite et suit avec attention les études de partage et de cohabitation avec le service mobile par satellite qui s'effectuent au sein des commissions de travail de l'UIT-R.

GUINEA:

Support position made by ECCAS considering the heavy usage in their country in the mentioned band.

AVANTI:

Avanti does not support allocation of additional MSS allocations especially on 25.5-26 GHz (which is important for EESS).
Any new MSS allocation in 22 – 26 GHz, will jeopardise protection of EDRS inter-satellite systems and new BSS feeder links in 24 / 25 GHz.

ICAO:

To oppose any new mobile satellite service allocation unless it has been demonstrated through agreed studies that there will be no impact on aviation use in the 24.25 – 24.65 GHz frequency band in Regions 2 and 3.

African Preliminary View:

- Not in favor for a new allocation in 22-26GHz bands, due to extensive use of those bands by fixed and mobile terrestrial services in Africa. However, the region may review this preliminary view based on the outcomes of sharing studies in those bands.

Agenda Item 7	**Improvements to Satellite procedures**

EACO:

Support changes or options which enhance an equitable, efficient, and economical use of orbital/spectrum resources for space services and further more address deficiencies and improvements in the advance publication, coordination, notification and recording procedures of the Radio Regulations for frequency assignments pertaining to space services

ECCAS:

Soutenir tous les aspects visant à :

- ✓ Réduire les satellites papiers;
- ✓ Prolonger les délais des réactions des administrations consultées;
- ✓ Considérer la non réaction commeune opposition;
- ✓ Multiplier des relances;
- ✓ Protéger les ressources orbitales des pays en développement;

SADC:

SADC supports changes to the improvements in Chapter 3 procedures.

SUDAN:

Sudan supports possible changes to improve advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks. Continue following the current studies in WP 4A

NIGERIA:

Nigeria supports method A2 to satisfy the AI.

Reason: This will assist other administrations to plan their intending network(s) with consideration to the suspended network and will limit further coordination procedures when the suspended network is eventually brought back to use.

Chapter 5 - Compilations [Satellite Regulatory issues --- 7, 9.1.1, 9.1.2, 9.1.3, 9.1.5, 9.1.8, 9.3]

ALGERIA:

Les études y afférentes étant toujours en cours, l'Administration algérienne recommande de suivre attentivement l'avancement de ces travaux.

AVANTI :

Ensure any changes do not put existing and planned satellite spectrum / systems at risk
Ensure adequate flexibility for future developments.
Improve API, coordination, notification and recording procedures
No support to change DT/T approach to C/I.
No support to suppress API publication.

RASCOM:

Supports any possible improvements

<u>African Preliminary View:</u>

- Support any possible change for improving satellite coordination procedures.

Agenda Item 9.1-1	**Protection of systems on mobile satellite systems in the band 406-406.1 MHz**

EACO:

Support the appropriate regulatory, technical and operational studies with a view to ensuring the adequate protection of MSS systems in the frequency band 406-406.1MHz from any emissions that could cause harmful interference

ECCAS:

Compte tenu de l'importance de la mission effectuée à l'aide de cette bande, toute action visant à renforceras protection est à soutenir

SADC:

SADC supports the protection of the band 406-406.1 MHz from harmful interference.

SUDAN:

Sudan supports protection of the systems operating in the mobile-satellite service in the band 406-406.1 MHz. Continue following the current studies in WP 4C.

NIGERIA:

As a band reserved for a distress and safety system, to which Africa is a beneficiary of the Global Distress and Safety System and GMDSS, Nigeria supports the protection and compliance with Radio Regulations Footnote 5.267, "Any emissions capable of causing harmful interference to the authorized uses of the band 406-406.1 MHz is prohibited", provided there is no undue constraint on the implementation of Mobile Systems near this band, hence, more studies should be carried out.

ALGERIA:

L'administration algérienne appuie les études visant la protection des systèmes fonctionnant dans le service mobile par satellite dans la bande 406-406.1 MHz et soutient l'élaboration d'éventuelles dispositions réglementaire qui y concourent.

ICAO:

Support any proposals for increased protection of COSPAS-SARSAT system in the frequency band 406 – 406.1 MHz

African Preliminary View:

- Support the protection of these bands for the existing service which is safety-of-life application.

Agenda Item 9.1-2	**Reduction of satellite coordination arc**

EACO:
Follow up ongoing studies

ECCAS:
Il conviendrait de soutenir toute mesure proposée visant à la réduction de l'arc de coordination, qui constitue le déclencheur de la coordination des réseaux à satellites**.**

SADC:
SADC supports the continued studies pertaining to a possible reduction in the coordination arc pertaining to satellite coordination in C-band, Ku-band and Ka-band, as this will further improve the efficiency use of the GSO satellite orbit.

SUDAN:
Continue reviewing the Studies on possible reduction of the coordination arc and technical criteria used in application of No. 9.41 in respect of coordination under No. 9.7

NIGERIA:
Nigeria supports on-going studies to ensure that the coordination process can be made easier through further reductions in the coordination arc, and provide a boost to satellite communications, especially in Africa.
Nigeria supports the transition from ΔT/T coordination trigger to C/I because of the advantages listed in annex 42 while still awaiting further studies on other interconnected issues (PFD mask, change in Coordination arc and combination of PFD mask and C/I).

ALGERIA:
L'Administration algérienne suit attentivement les études relatives à la réduction de l'arc de coordination et aux critères techniques utilisés dans l'application du numéro 9.41. Elle est favorable pour le maintien des valeurs actuelles de l'arc de coordination.

AVANTI View on AI 9.1.2

WRC-12 reduced the coordination arc for C and Ku, to 8° and 7° respectively, however it was agreed that the coordination arc remains at 8° in Ka band until impact of reducing the arc size at Ka-band to be published.

Generally, Avanti does agree with any reduction in coordination arc at Ka-band.

Inmarsat:

Inmarsat is satisfied with the current provisions for identification of networks which require coordination.

African Preliminary View:

- To follow the ongoing studies.

Agenda Item 9.1-3	**Orbital slots for delivering international public services in developing countries**

EACO:
Support any measures that shall guarantee availability of public international telecommunication services delivered through satellite technology

ECCAS:
Pas de contributions a cestade. Les mesures qui seront présentées à travers les résultats des études de l'UIT-R pourront nous orienter à formuler des propositions

SADC:
SADC supports the continuation of the proposed studies

SUDAN:
Continue reviewing the Studies on use of satellite orbital positions and associated frequency spectrum to deliver international public telecommunication services in developing countries

NIGERIA:
Nigeria should follow up issue 9.1.3, possibly get more information from other ATU member states as this is an opportunity for the developing countries to preserve the common heritage and for rural area development (MDG projects on broadband).Support the preservation of the Common Heritage

ALGERIA:
L'Administration algérienne est favorable pour la sauvegarde des ressources spectrales et des fréquences associées pour maintenir la fourniture de télécommunications dans les pays en voie de développement.

Avanti:
The first-come-first-served disadvantages developing countries and for start-up satellite companies. Hence there is need to make the rules favorable for developing countries and for start-up satellite companies

African Preliminary View:

- In favor of measures that will deliver international access to public telecommunication services and requested ITSO to spearhead to process of common contributions to ITU from the region on this issue

Agenda Item 9.1-5	**Satellite services in the C-band (3400 – 4200 MHz)**

EACO:
Supports the principle of the agenda item.
ECCAS:
Dans l'attente des résultats de l'UIT-R Soutenir toutime sure visant à protéger la bande C, tout en permettant son utilisation au profit de l'aéronautique
SADC:
Whereas SADC support the continued use of the band 3600-4200 MHz for satellite services, the band 3400-3600 MHz is currently used for BFWA in SADC and is also earmarked for mobile (IMT) systems in the future.
SUDAN:

1. Sudan support protection of the band 3400-3600 MHz which is allocated to the mobile service.
2. Continue reviewing ongoing ITU-R studies

NIGERIA:
In view of the various existing services in this band, such as VSAT for meteorological information, the Nigcomsat C band transponders, and other Broadband Fixed wireless Access systems, Nigeria support maintaining the current FSS capacity and availability in the band 3400-4200 MHz in line with the position of the World Metrological Organization.
ALGERIA:
L'Administration algérienne appuie la mise à jour du Règlement des radiocommunications en vue de supprimer les dispositions obsolètes.
GSMA:
If the discussion based on the questions above shows there has been no evidence that the pfd limit in Footnote 5.430A is insufficient, then the GSMA believes no regulatory action is required under this issue as there has been no claim that the pdf limit specified in footnote 5.430A is not sufficient to protect cross-border operation of FSS stations.
ICAO:
To support possible technical and regulatory measures in the AFI other regions to ensure protection of VSATs used for the transmission of aeronautical and meteorological information in the 3.4 – 4.2 GHz frequency band from other services operating in the band.
ASECNA:
Support ICAO position on this issue and others.
African Preliminary View:

- To follow the ongoing studies

Agenda Item 9.1-8	**Nano- and pico-satellites**

ECCAS:
Pas de position. Prendre position en fonction des contributions qui seront apportées. Il convient de laisser le soin aux Administrations ayan tune parfaite maitrise de cette technologie, de faire des contributions à cestade.

SADC:
SADC supports the consideration of simplified regulatory procedures to apply the nano- and pico-satellites while protecting the use of other radiocommunication systems.

SUDAN:
Sudan supports studies of the regulatory aspects of nano- and pico-satellites, in accordance with Resolution

NIGERIA:
Nigeria supports on-going studies and regulatory modifications that will adequately facilitate the deployment and operation of Pico and Nano-Satellites taking into account their short development cycles, short life times and unique orbital characteristics to mention a few. These modifications must be in line with the needs of developing nations. Relevant agencies and Academia will continue to collaborate on such research.

ALGERIA:
L'Administration algérienne considère que les nano satellites et pico satellites peuvent contribuer à faciliter les communications par satellite actuelles. D'où la nécessité de définir avec soins les dispositions règlementaires et opérationnelles devant les régir. Elle soutient et suit les travaux en cours du groupe de travail de l'UIT-R réalisés au niveau du groupe de travail 7B.

African Preliminary Review:

- In favour of measures that will ensure efficient deployment of Nano- and Pico- satellites while ensuring protection of existing services.

Agenda Item 9.3	**Action on Resolution 80 (Due diligence in applying the Constitution)**

ECCAS:
Prendre position en fonction des rapports qui seront présentés

SADC:
SADC supports the continued efforts of the ITU pertaining to the implementation of due diligence pertaining to the use of the radio frequency spectrum and satellite orbital resources.

NIGERIA:
Nigeria supports the modifications to the Radio Regulations where necessary, to accommodate in a more equitable manner, the urgent needs of developing nations in allocation of resources, in line with the recommendations by the Legal Sub-committee of the Peaceful Uses of Outer Space of the United Nations General Assembly highlighting the need for improvements in implementing the Radio Regulations with regards the subject matter of developing countries.

ALGERIA:
L'Administration algérienne suit les travaux y afférents en cours au niveau de l'UIT-R.

SUDAN:
Support continuation of studies to enhance improvement of radio regulations.

African Preliminary Review:

- In favour of measures that will ensure the provisions of RR are in line with present realities and requirements

Chapter 6 - Compilations [General issues; 2, 4, 9.1.4, 9.1.6, 9.1.7, 10]

Agenda Item 2	**Updating of ITU-R Recommendations incorporated by reference in the Radio Regulations**
ALGERIA: Suivre les etudes en cours. **<u>African Preliminary View</u>** • No view	

Agenda Item 4	**Review of resolutions and recommendations of previous WRCs**

ALGERIA:
L'Administration algérienne suit les travaux en cours sur le sujet au niveau de l'UIT-R et le rapport du Directeur du secteur des Radiocommunications.

African Preliminary View

- No view

Agenda Item 9.1-4	**Updating and rearrangement of the RR**

SADC:
SADC supports the studies with an effort to improve and simplify the Radio Regulations.

ALGERIA:
L'Administration algérienne appuie la mise à jour du Règlement des radiocommunications en vue de supprimer les dispositions obsolètes.

African Preliminary View

- No view

Agenda Item 9.1-6	**Definitions of fixed service, fixed station and mobile station**

SADC:
SADC supports the studies pertaining to the definition of fixed service, fixed station and mobile station.

SUDAN:
Sudan object to change the definitions to the fixed service, fixed station& mobile station because it would affect national regulations.

ALGERIA:
L'Administration algérienne estime que les définitions proposées à ce jour engendreraient un impact négatif sur les réglementations nationales des radiocommunications.
En conséquence, elle n'appuie pas les trois définitions proposées.

ICAO:
Ensure that any change to the definitions as a result of a review of the studies referenced in Resolution 957 do not adversely impact aviation.

Benin:
Benin is not in favour of any change to the current definitions.

African Preliminary View:
1. Not in favour of any change to the current definitions.
2. To await the outcome of ongoing studies.

Agenda Item 9.1-7	**Spectrum management guidelines for emergency and disaster relief communications**

SADC:
Whereas SADC countries support Resolution 647 (Rev. WRC-12) pertaining the emergency and disaster relief radiocommunications, Member States are encourage to submit, as soon as possible to the ITU in line with Res 647, the frequencies available for use in emergency and disaster relief. To this extent, SADC members are encourage to note the CRASA document titled "Framework for harmonisation of frequencies for Public Protection and Disaster Relief (PPDR) in SADC".

ALGERIA:
L'Administration algérienne suit attentivement les études relatives à ce point

African Preliminary View:

- Administrations are encouraged to submit to ITU possible available frequencies to be used for emergency and disaster relief.
- Encourage Administrations to consider regional harmonization of PPDR frequencies.

Agenda Item 10	**WRC-18 Agenda Items**

SADC:
All Member States are encouraged to identify possible new studies for submission to WRC-15 to be considered by the next World Radiocommunication Conference.

African Preliminary View:

- Administrations are encouraged to identify possible new studies for submission to WRC-15 for consideration under this agenda item
- Administration are encouraged to share such new proposed studies with fellow administrations via the ATU framework in order to create awareness and gather support for the studies so proposed.

Chapter X - Compilations [Footnotes and Consequential Issues --- 3, 5, 6, 8, 9.2]

Agenda Item 3	**Consequential changes to RR as a result of Conference (WRC-15) decisions**
No submissions	

Agenda Item 5	**Actions on the report from the RA-15**
No submissions	

Agenda Item 6	**Identification of issues for ITU-R Study Groups in preparations for WRC-18**
No submissions	

Agenda Item 8	Footnotes

ALGERIA:
L'Administrationalgériennerévise les notes de bas de page de l'article 5 du Règlement des radiocommunications.

ICAO:
Has the following positions
• To support deletion of Nos. 5.181, 5.197 and 5.259, as access to the frequency bands 74.8 – 75.2, 108 – 112 and 328.6 –335.4 MHz by the mobile service is not feasible and could create the potential for harmful interference to important radionavigation systems used by aircraft at final approach and landing as well as systems operating in the aeronautical mobile service operating in the frequency band 108 – 112 MHz.
• To support deletion of No. 5.330 as access to the frequency band 1 215 – 1 300 MHz by the fixed and mobile services could potentially cause harmful interference to services used to support aircraft operations.
• To support deletion of No. 5.355 as access to the frequency bands 1 610.6 – 1 613.8 and 1 613.8 – 1 626.5 MHz by the fixed services could potentially jeopardize aeronautical use of these frequency bands.
• To support the deletion of Nos. 5.362B and 5.362C as of 2015 in order to eliminate harmful interference that has been caused by the fixed service to essential aeronautical radionavigation satellite functions in the band 1 559 –1 610 MHz and to permit the full utilization of GNSS services to aircraft on a global basis.
• To support the deletion of No. 5.439 to ensure the protection of the safety critical operation of radio altimeters in the band 4 200 – 4 400 MHz.

Agenda Item 9.2	**Application of RR**
NIGERIA: Nigeria to wait for the modification of this article, as advised in the report of Working Party 4A which has even been referred to the director of Bureau.	