



**PREPARATORY SEMINAR OF THE AFI AIR NAVIGATION SERVICE PROVIDERS  
(ANSP) TO THE ITU WRC -2012**

**DAKAR, 20 - 22 APRIL 2011**

**THEME: PROTECTION AND NEW STAKES OF AERONAUTICAL FREQUENCIES  
SPECTRUM**

## **REPORT**

April 2011

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## **1. INTRODUCTION**

From 20 to 22 April 2011, it was held in Dakar at the premises of ASECNA Head Office a preparatory seminar of Air Navigation Services Providers (ANSP) in AFI Region for the World Radio communications Conference 2012 (WRC-2012) of International Telecommunication Union (ITU) scheduled to be held in Geneva in January and February, 2012.

## **2. OBJECT AND OBJECTIVES OF THE SEMINAR**

**2.1** The object of this seminar organized by ASECNA was to make sensitive the participants on the more crucial stakes on aeronautical frequencies spectrum, the importance of the management and the protection of the frequency spectrum dedicated to the civil aviation.

**2.2** The main objectives of the seminar were to contribute to a better preparation of the Region AFI for the WRC on 2012 in particular through:

- The active participation of AFI Region Air Navigation Services Providers ( ANSP) within the local preparation committees of the WRC -2012 and the defence of International Civil Aviation Organization (ICAO) position in aeronautical spectrum in connection with the concerned actors;
- The intensification of the coordination in the follow-up, the management and the protection of the aeronautical frequencies spectrum as well as the wrestling against the intra and extra interference of aeronautical band by a fruitful cooperation between all the stakeholders.
- The conviction of Telecommunications Regulation Authorities on the necessity of not applying royalties for the exploitation of the aeronautical telecommunications stations and the use of the aeronautical frequencies in the air navigation services supply intended to assure the safety of the human lives and the aircrafts.

## **3. PARTICIPATION**

**3.1** Organized by ASECNA in coordination with ICAO and the French DGAC, the seminar recorded the effective and fruitful participation of the main actors occurring in the management, the follow-up and the protection of the spectrum in particular, the regional offices of ICAO (WACAF and ESAF), the French DGAC, the ITU office in Dakar (Senegal), the Telecommunications Regulation Agency (ARTP) of Senegal, and the African Union of Broadcasting (AUB).

**3.2** The seminar also recorded the participation of several Air Navigation Service Providers ( ANSP) of AFI region (Robert FIR, GCAA (Gambia), GCAA (Ghana), ENANA (Angola), ENNA (Algeria), Authorities of the Civil aviation of the AFI Region (South Africa, Cameroon, Mali, Mauritania, Democratic Republic of the Congo, Rwanda and Senegal), the Project of ICAO for Somalia (CACAS), delegates of the seventeen (17) Representations of the ASECNA member states, ASECNA Delegation in Paris ( DELP) and the General Directorate of ASECNA.

The list of the participants is joined in **Appendix A**.

#### **4. PROGRESS OF THE WORK**

**4.1** The opening and the works took place in the meeting room of ASECNA Head office under the presidency of Sir Wodiaba SAMAKE, Director of the Technical Operation, representing the General Director of ASECNA, in the presence of:

- Mrs Evora MARGARIDA SAGNA, Representative of the ITU for western Africa;
- Mr François Xavier SALAMBANGA and Prosper ZO' O MINTO' O, respectively Regional Expert in Communications, Navigation and Surveillance ( CNS) of the regional offices of the ICAO for the West and central Africa ( WACAF-Dakar) and East and southern Africa ( ESAF-Nairobi);
- Mr. Eric ALLAIX Chef of the Radio Spectrum and Frequencies Division in the Directorate General Civil Aviation (DGAC) of / France;
- Mr. Lawrence ADDO-YAO ATIASE, Chief Executive Officer of the African Union of Broadcasting (UAR); and
- Mr. NIANE Khalilou, Leader Network Service at the Telecommunications and Posts Regulation Authority of Senegal (ARTP)

**4.2** The participants adopted the agenda containing five points and the relative presentations were made by the experts of ITU, DGAC / FRANCE, ICAO / WACAF, ICAO / ESAF, and ASECNA. The agenda of the meeting appears in Appendix B in the present report.

4.3 The various sessions of the seminar were successively chaired by Sirs: Hugues AYINA, Bissa SOUGUE, François Xavier SALAMBANGA, Jean Patrick RANDRIANASOLO, Prosper ZO'O MINTO'O, Eric DAMIBA and Khalilou NIANE.

The secretariat was assured by Sirs:

- Patrick RAKOTOMAHEFA, ASECNA head office
- Apollin KOMGUEM MAGNI, ASECNA Cameroon
- Aboubacar THIOUNE, ASECNA Senegal
- Matho Nianga GOMOU, Roberts FIR

## 5. RESULTS, CONCLUSIONS AND RECOMMENDATIONS

At the conclusion of the presentations and the discussions about the points of the agenda, recommendations and conclusions were adopted by the seminar to the attention of the ANSP and, through them, to the administrations of the civil aviation which handle to carry some activities by ensuing in the Telecommunications Regulation Authorities.

So, eleven (11) recommendations and four (4) conclusions were formulated and their list is in **Appendix C** in the present report.

### 5.1 1 – Agenda item 1: statutory inventory of the aeronautical frequencies and the international institutions and the process of research and assignment of the frequencies.

5.1.1 The seminar noted with satisfaction the experience of some States in the coordination, the exploitation and the management of the aeronautical frequencies in particular through (Memorandum of Understanding). Towards the still persistent difficulties in the other States, the seminar formulated the following recommendation:

#### **RECOMMENDATION 2/1: IMPLEMENTATION OF A FORMAL COORDINATION FRAME BEETWEN REGULATORS, CIVIL AVIATION AUTHORITIES AND SUPPLIERS OF AIR NAVIGATION SERVICES FOR AERONAUTICAL SPECTRUM MANAGEMENT**

*The seminar recommends the implementation, at the level of every State, a formal coordination frame between the Regulator of Telecommunications, the Regulator of Civil aviation and the suppliers of the air navigation services for the improvement of the exploitation, the management, the follow-up and the protection of the spectrum and the aeronautical frequencies.*

**5.1.2** The seminar noted that some Telecommunications regulation Authorities of AFI Region applied various regimes of invoicing the exploitation of aeronautical radio stations and the use of the spectrum and the aeronautical frequencies, and drew the attention of States on the character of public security service of the supplied aeronautical services. It has got knowledge and was delighted at commitments taken by the Civil aviation Authorities of the AFI region during seventh meeting of the African Group of Planning and Implementation ( APIRG / 17) held in Ouagadougou, Burkina Faso on August 2nd, 2010 through the Conclusions 17/36 **Recording of the operational frequencies and 17/38: not application of royalties for the use of the spectre of aeronautical frequencies** Besides, it underlined the necessity of having databases reliable and reassured for a better management of the frequencies. Making it, it has formulated the following conclusion and recommendations:

**CONCLUSION 2/1: NOTIFICATION AND REGISTRATION OF THE AERONAUTICAL FREQUENCIES**

*The seminar recommends to the ANSP and the Civil aviation Authorities to implement some measures of air navigation Plan of the AFI Region relative to the notification to the ICAO and ITU for assignments of frequencies, and recording by ITU the frequencies used for the aeronautical needs to assure their protection, according to the conclusion 17/36 of APIRG group.*

**RECOMMENDATION 2/2: NO - APPLICATION OF ROYALTIES ON AERONAUTICAL RADIO STATIONS OPERATION AND USE OF FREQUENCIES OF THE AERONAUTICAL SPECTRUM**

*The seminar recommends in the national Civil aviation Authorities to make sure that Telecommunications regulation Authorities do not apply royalties to the operation of aeronautical radio stations and the use of the spectrum and the aeronautical frequencies, considering the character of public security service of the aeronautical services, that according to the conclusion 17/38 of the group APIRG.*

**5.1.3** The seminar was informed about the procedures of collection, recording and watching of the aeronautical frequencies led in the region and noted the importance to improve this process through the intensification of mechanisms and implementation of tools suited by States, ANSP with the assistance of the ICAO and formulated the following recommendation:

## **RECOMMENDATION 2/3: IMPLEMENTATION OF RELIABLE DATABASES AND REASSURED FOR AERONAUTICAL FREQUENCIES MANAGEMENT**

*The seminary recommends to:*

*a) ICAO to pursue and finalize the process of implementation of a world database strengthened from the regional lists COM, as well as an assignments planning software of the aeronautical frequencies.*

*b) The suppliers of air navigation services of the aviation / civil aviation Authorities to set up mechanisms and tools suited to improve the aeronautical frequencies spectrum management (database, software) and feed regularly the regional database*

### **5.2 Agenda item 2: Wrestling against Interferences**

5.2.1 The seminar noted with a lot of interest the examples of treatment of interferences as well in Europe as in the AFI region. However it noted with preoccupation the increase of interferences phenomena of the aeronautical frequencies in the AFI region and which sources are varied (aeronautical operators, FM radio stations, WIMAX, radio beams, satellites carriers.).

5.2.2 He underlined the difficulties met in the wrestling against these interferences considering the distribution of the sources which can be extra - bands, extra- national and of the absence of technical means of surveillance / detection of the interferences and the jamming. It emerges the necessity of coordination both at the national level, regional and interregional, and the acquisition of means of wrestling against the interference

5.2.3 Considering the necessity of arranging equipments suited for the detection and wrestling, the seminar encourage ASECNA to acquire the necessary material, Aircraft laboratory with including specialized equipment to be integrated for the related missions to the detection and the wrestling against the interference.

## **CONCLUSION 2/2: STATISTICS AND INVESTIGATION INTO THE HARMFUL INTERFERENCES AFFECTING THE FREQUENCIES AND THE AERONAUTICAL BANDS**

*The seminar asks the provider of the air navigation services of AFI region:*

*a) to grant a particular importance for the statistics for the instruction and the treatment of the harmful interferences, and consequently,*

*b) To take an active part in the national programs intended to eliminate the interferences on the aeronautical frequencies, and to notify to the national Civil aviation authorities and the Telecommunications regulations, the persistent harmful interferences noticed in the operation centers, according to articles 15 (section VI) - Procedure in case of harmful interference, and article 16 - international Surveillance of the Regulation of the radio communications of ITU. The Plan of air navigation of AFI Region contains indicative elements on this subject.*

5.2.4 The seminar also discussed cases of cross-border jamming which can impact on the safety of the aviation and making so complex the problem of treatment of this type of jamming. It underlined the difficulties of wrestling against this type of jamming in AFI region and noted the interest for the stakeholders to handle these problems through mechanisms of regional cooperation. The seminar formulated the following recommendation:

#### **RECOMMENDATION 2/4: COOPERATION IN WRESTLING AGAINST JAMMING**

*The seminar recommends to the ANSP in AFI Region to set up mechanisms of regional, interregional and international cooperation (Intra ANSP AFI, AFI / MID, AFI / EUR) in detection, wrestling against the jamming of aeronautical frequencies taking into account the complexity of the cross-border jamming of origin as well as their impact on the safety of air navigation.*

#### **5.3 Item 3: World Radio communications Conference: position of ICAO**

The seminar noted with interest the process and the stakes in the preparation of a WRC for the national, regional, interregional and international levels, highlighted the experiences of the French DGAC, Senegal and the other African countries as well as the ANSP.

The coordination was highlighted at various levels, through preparatory meetings allowing the harmonization of the positions, following the example of the present preparatory seminar in the WRC- 2012 which was held in Dakar from 20 to 22 April 2011 in this spirit.

The seminar convinced itself that a good preparation of the WRC-2012 and the defence of ICAO position were conditioned by an active participation in the various preliminary documents of the conference and a support by the stakeholders of the position of ICAO for the national, regional and world level,

It consequently formulated the following conclusion and the recommendation:

#### **CONCLUSION 2/3: PARTICIPATION OF THE CIVIL AVIATION IN THE PRELIMINARY DOCUMENTS IN THE WRC- 2012 AND DEFENSE OF ICAO POSITION**

*The seminar invites the ANSP in coordination with the Authorities of the civil aviation in:*

- a) Participate actively in the preliminary documents in the WRC- 2012 on a national scale and making it;*
- b) Defend the position of the ICAO for the WRC- 2012 considering in the harmonized national positions at the level of the AFI Region*



**RECOMMENDATION 2/5: PARTICIPATION OF THE ANSP AND OF CIVIL AVIATION AUTHORITIES IN THE REGIONAL WORKING GROUPS: ICAO /ITU/ANSP /ART/ATU**

*The seminar recommends to ANSP in coordination with the civil aviation Authorities to participate in the next technical meetings on the WRC-12 scheduled by ATU, ITU, and ICAO to make sure the support of States for ICAO position*

***5.4 Item 4: The WRC-2012 items that having an importance for the aeronautical sector and the progress of the studies at ITU-R and ATU***

**5.4.1** The seminar was informed that some states of AFI region always have them names present in some dismissals of the regulation of Radio communications of the ITU, dismissals which authorize the use with secondary title of frequencies assigned in particular in the service of aeronautical radio navigation by satellite. It took note of the commitments taken by the Civil aviation Authorities of AFI region during seventh meeting of the African Group of Planning and Implementation (APIRG /17) held in Ouagadougou, Burkina Faso from 02 to 06 August 2010 through the Conclusion 17/35 *Deletion of the dismissals 5.330, 5.362B and 5.362C* which asks insistently these States to notify to ITU the abolition deletion concerning them.

The following recommendation was taken:

**RECOMMANDATION 2/6: DELETION OF THE DISMISSALS CONCERNING THE STATES OF AFI REGION**

*The seminar recommends States of the AFI Region to delete the dismissals concerning them which appear presently in ITU radio communications Regulation.*

**5.4.2** During its deliberations, the seminar noted and recognized the profit which could be gained if the questions of the stake and the real threats on the spectre aeronautics could be reported at the level of the High Authorities of the AFI region through the CAFAC, the body specialized the African Union on the aeronautical questions and asked the ICAO which assures the secretariat of APIRG to attend if need the CAFAC in this approach. It consequently formulated the following recommendation:

## **RECOMMENDATION 2/7: SENSITIZATION OF THE HIGHEST AUTHORITIES**

*The seminar recommends that:*

- a) CAFAC, the specialized institution of African Union, sensitises the highest authorities of the AFI Region on the questions relative to the spectrum of aeronautical frequencies and the major stakes attached to;*
- b) ICAO assists if need, the CAFAC in this approach through the structures and the mechanisms set up by the APIRG Group.*

5.4.3 The seminar also discussed the importance of the harmonization of the national positions for the WRC with ICAO. Through the examples given by Senegal, Cameroon, Mali, Niger, France and ASECNA, the seminar was informed about the various possibilities of national initiatives to allow the integration of the ICAO position with AFI region countries. The Telecommunications Regulation Authority of Senegal reminded that the next preparatory meeting in the WRC 2012 of the African Group will be held in Alger in July and ICAO insisted on the necessity of an important participation of the representatives of the civil aviation in this important meeting.

The seminar consequently took the following Recommendation:

## **RECOMMENDATION 2/8: HARMONIZATION OF THE NATIONAL POSITIONS WITH ICAO POSITIONS**

*In 2011, the seminar recommends that with the aim of the next preparatory meeting of the WRC 2012 planned in Algeria in July, the States of AFI Region*

- a) Harmonize their national positions with the position of the ICAO and;*
- b) Assure the effective participation of the representatives of the Civil aviation in the national delegations led by the of Telecommunications Regulations Authorities to defend this position.*

### ***5.5 Item 5: Coordination / lobbying and sharing of experience***

5.5.1 The seminar benefited from the contribution of the International Telecommunication Union (ITU) Office for western Africa, from the African Union of Broadcastings (AUB), from the ICAO and from the TPRA of Senegal and from the DGAC France all insisted on the importance of the coordination and the lobbying for the national, regional and international plans in the preparation of the WRC.

5.5.2 The seminar looked particularly the frames of cooperation susceptible to be developed between the ANSPs of AFI region with the international structures particularly ICAO, ITU and the European ANSP.

To define guidelines for the management of the aeronautical spectrum in the AFI region, it seemed necessary for the seminar to adhere the idea of the creation of a reflexion group ICAO / ITU / ANSP placed under the coordination of the regional office of the IUT for western Africa.

This group would act in dialogue with the bodies occurring of the aircraft industry candidate in the use of the aeronautical spectrum and the governmental institutions concerned by the AFI region (Telecommunication Regulation Authority, CAFAC, Institutions under regional loaded with the civil aviation)

The seminar consequently formulated the following conclusion:

#### **RECOMMENDATION 2/9: CREATION OF A REFLECTION GROUP: ICAO/ ITU/ ANSP**

*The seminar recommends the creation of a Reflexion group ICAO / ITU / ANSP placed under the coordination of ITU regional office, asked to define guidelines for the optimum management and the protection of the aeronautical spectrum in the AFI region in dialogue with the industry of the civil aviation, the Civil aviation authorities, the Telecommunications regulation agencies and institutions regional cooperation in charge of civil aviation.*

**5.5.3** The seminar noted the limits in capacities of engineering for the management of frequencies spectrum in AFI region. It appreciated positively the efforts undertaken by ICAO in this domain by the organization of seminars, ASECNA in the acquisition of software of forecast of ionospheric distribution and joints the projects of conclusions on the question, the second meeting of AFI Frequencies Management Group which was held in Dakar from 18 to 19 April 2011 in Dakar.

**5.5.4** It was concluded that a regional cooperation between suppliers of services of AFI region and the suppliers of service of EUR region could allow sharing the means and the procedures of implementation of capacities in human resources (staff and training) necessary for the development of the activities of management of the spectrum in AFI zone.

The following recommendation was formulated:

#### **RECOMMENDATION 2/10: REGIONAL AND INTERNATIONAL COOPERATION (MAENS ASPECTS AND INTENSIFICATION OF CAPACITIES)**

*The seminar recommends the implementation of cooperation mechanisms between suppliers of aviation services in AFI region and between ANSP / AFI and ANSP / EUR for:*

- a) The development of the spectrum management activities in AFI zone;*
- b) The intensification of capacities in terms of human resources to adapt itself better to the future requirements of frequencies management and the future stakes in the Systems CNS*
- c) Sharing experiences between the various actors;*

**5.5.5** The seminar was informed about the possibilities often offered by the ITU for the intensification of the operational capacities of developing countries through regional projects. The necessity for the ANSPs of the AFI region was recognized to benefit from the support of the ITU in the field of the management of the aeronautical frequency spectrum. To elaborate a strengthened regional project, the seminar asked to ICAO to assure the coordination of the necessary actions with the ITU to allow the civil aviation of AFI region to benefit from plans and training programs intended to strengthen capacities of human resources for optimum management and protection of the aeronautical spectrum.

## **RECOMMENDATION 2/11: COOPERATION ICAO / ANSP / ITU IN THE INTENSIFICATION OF THE OPERATIONAL CAPACITIES**

*The seminar invites the ICAO and the ANSP to undertake the necessary coordination with the ITU to allow the civil aviation to benefit from plans and existing training programs and to strengthen the operational capacities in spectrum management for AFI Region.*

5.5.6 The seminar estimated, appreciated the impact of its deliberations and considers that the results supplied by this forum of exchange deserved to be shared at the level of AFI region to allow the ANSPs to enrich them or to take advantage of it to strengthen their preparation strategy of the next WRC. The seminar thus asked the ASECNA, Reporter of the African Group of Aeronautical Frequencies Management to spread in association with the ICAO, its works within the specialized groups and to seize institutions concerned by the future actions such as listed in the Action plan attached in Appendix C to the present report.

## **CONCLUSION 2/4: DISTRIBUTION OF THE SEMINAR RESULTS AT THE SPECIALIZED GROUPS (CAFAC, APIRG, AFI / FMG, UAT.) LEVEL**

*The seminar requests from the reporter of African Frequencies Management Group (AFI / FMG / 2) in association with the ICAO, to spread the results of these works at the specialized groups (CNS / SG, APIRG, AFI / FMG, ATU) level to carry out the consideration and to seize the regional and sub-regional structure called to be involve in the future actions Plan.*

## **6. CLOSURE OF THE SEMINAR**

The closing ceremony was punctuated by four (04) interventions:

### ***6.1 Intervention of the Person in charge of the Telecommunications Operation in ASECNA***

The Person in charge of the Telecommunications Operation which is the main coordinator of this seminar presented to the Chief Executive of the ASECNA a summary on the progress, the participation, the debated subjects, the expected objectives and the results were reached by the seminar.

### ***6.2 Intervention of the Algeria Delegate spokesperson of the participants***

By the voice of the representative of Algeria, the participants sent a motion of thanks to the Chief Executive of ASECNA and his staff to have organized and sheltered this important seminar.

### ***6.3 Intervention of the Representative of the ICAO Regional Offices***

The Regional Expert Communication Navigation and Surveillance of ICAO Regional Office for the West and central Africa has in the name of the Regional Directors of the regional Offices of Nairobi and Dakar thank ASECNA by organizing this seminar and offered kindly all the opportunities for holding the second meeting of African Frequencies Management Group (AFI / FMG / 2).

He saved main decisions, conclusions and recommendations stemming from these two meetings, as well as their implications in term of responsibility (in particular for ASECNA confirmed as reporter of the African Frequencies management Group with ACP / WG / F, ATU and CNS / SG) in the execution of the working programs which will arise from it, and renewed the commitment and the availability of ICAO to assist States and ANSPs of the AFI region in the field of the management of the aeronautical frequencies spectrum wishing to do it a strong support of States to ICAO positions for the WRC -2012.

#### ***6.4 Intervention of the Chief Executive Officer of ASECNA***

The Chief Executive Officer congratulated the seminarists for the work made to end on conclusions and relevant recommendations which will make sensitive the various participants to support the position of the ICAO to the next WRC-2012 who will take place in Geneva.

He reassured the participants for his support in the implementation of measures taken during the seminar.

Before declaring the closure of the works, he thanked the experts who livened up the works as well as all the participants in this seminar and he wished a good return to the participants in their respective home.

Done in Dakar, April 22nd, 2011

## 7. ANNEXES

# Annex A

## List of Participants

N°	PAYS/ORGANISATION	TITRES	TELEPHONE	E-MAIL
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## **Annex B**

### **Agenda**

*Item 1: Statutory Inventory of fixtures of the aeronautical frequencies and the international institutions and process of research and assignment of the frequencies.*

*Item 2: Wrestling against interference.*

*Item 3: World Radio communications Conference (WRC): position of ICAO.*

*Item 4: points of the WRC-2012 agenda having an importance for the aeronautical sector: 1.3; 1.4; 1.7 and the state of progress of the studies in the ITU-R and in the ATU.*

*Item 5: Procedures of submission of the aeronautical needs in the WRC*

## Annex C

### List of Conclusions and Recommendations

<u>Agenda Item 1</u>	<i>Statutory inventory of the aeronautical frequencies and the international institutions and the process of research and assignment of the frequencies</i>
<u>Recommendation</u> <u>2/1 :</u>	<p style="text-align: center;">IMPLEMENTATION OF A FORMAL COORDINATION FRAME BETWEEN REGULATORS, CIVIL AVIATION AUTHORITIES AND SUPPLIERS OF AIR NAVIGATION SERVICES FOR AERONAUTICAL SPECTRUM MANAGEMENT</p> <p><i>The seminar recommends the implementation, at the level of every State, a formal coordination frame between the Regulator of Telecommunications, the Regulator of Civil aviation and the suppliers of the air navigation services for the improvement of the exploitation, the management, the follow-up and the protection of the spectrum and the aeronautical frequencies.</i></p>
<u>Conclusion</u> <u>2/1</u>	<p style="text-align: center;">NOTIFICATION AND REGISTRATION OF THE AERONAUTICAL FREQUENCIES</p> <p><i>The seminar recommends to the ANSP and the Civil aviation Authorities to implement some measures of air navigation Plan of the AFI Region relative to the notification to the ICAO and ITU for assignments of frequencies, and recording by ITU the frequencies used for the aeronautical needs to assure their protection, according to the conclusion 17/36 of APIRG group.</i></p>
<u>Recommendation</u> <u>2/2</u>	<p style="text-align: center;">NO - APPLICATION OF ROYALTIES ON AERONAUTICAL RADIO STATIONS OPERATION AND USE OF FREQUENCIES OF THE AERONAUTICAL SPECTRUM</p> <p><i>The seminar recommends in the national Civil aviation Authorities to make sure that Telecommunications regulation Authorities do not apply royalties to the operation of aeronautical radio stations and the use of the spectrum and the aeronautical frequencies, considering the character of public security service of the aeronautical services, that according to the conclusion 17/38 of the group APIRG.</i></p>

**IMPLEMENTATION OF RELIABLE DATABASES AND REASSURED FOR AERONAUTICAL FREQUENCIES MANAGEMENT**

*The seminary recommends to:*

- a) ICAO to pursue and finalize the process of implementation of a world database strengthened from the regional lists COM, as well as an assignments planning software of the aeronautical frequencies.*
- b) The suppliers of air navigation services of the aviation / civil aviation Authorities to set up mechanisms and tools suited to improve the aeronautical frequencies spectrum management (database, software) and feed regularly the regional database*

***Wrestling against interferences***

**STATISTICS AND INVESTIGATION INTO THE HARMFUL INTERFERENCES AFFECTING THE FREQUENCIES AND THE AERONAUTICAL BANDS**

*The seminar asks the provider of the air navigation services of AFI region:*

- a) to grant a particular importance for the statistics for the instruction and the treatment of the harmful interferences, and consequently,*
- b) To take an active part in the national programs intended to eliminate the interferences on the aeronautical frequencies, and to notify to the national Civil aviation authorities and the Telecommunications regulations, the persistent harmful interferences noticed in the operation centers, according to articles 15 (section VI) - Procedure in case of harmful interference, and article 16 - international Surveillance of the Regulation of the radio communications of ITU. The Plan of air navigation of AFI Region contains indicative elements on this subject.*

<p><u>Recommendation</u> 2/4</p>	<p><b>DISTRIBUTION OF THE SEMINAR RESULTS AT THE SPECIALIZED GROUPS (CAFAC, APIRG, AFI / FMG, UAT.) LEVEL</b></p> <p><i>The seminar requests from the reporter of African Frequencies Management Group (AFI / FMG / 2) in association with the ICAO, to spread the results of these works at the specialized groups (CNS / SG, APIRG, AFI / FMG, ATU) level to carry out the consideration and to seize the regional and sub-regional structure called to be involve in the future actions Plan.</i></p>
<p><u>Agenda Item 3</u></p> <p><u>Conclusion 2/3 :</u></p>	<p><b>World Radio communications Conference: position of ICAO</b></p> <p><b>PARTICIPATION OF THE CIVIL AVIATION IN THE PRELIMINARY DOCUMENTS IN THE WRC- 2012 AND DEFENSE OF ICAO POSITION</b></p> <p><i>The seminar invites the ANSP in coordination with the Authorities of the civil aviation in:</i></p> <ul style="list-style-type: none"> <li><i>a) Participate actively in the preliminary documents in the WRC- 2012 on a national scale and making it;</i></li> <li><i>b) Defend the position of the ICAO for the WRC- 2012 considering in the harmonized national positions at the level of the AFI Region</i></li> </ul>
<p><u>Recommendation</u> 2/5 :</p>	<p><b>PARTICIPATION OF THE ANSP AND OF CIVIL AVIATION AUTHORITIES IN THE REGIONAL WORKING GROUPS: ICAO / ITU / ANSP / ART / ATU</b></p> <p><i>The seminar recommends to ANSP in coordination with the civil aviation Authorities to participate in the next technical meetings on the WRC-12 scheduled by ATU, ITU, and ICAO to make sure the support of States for ICAO position</i></p>
<p><u>Agenda Item 4</u></p>	<p><b>The WRC-2012 items that having an importance for the aeronautical sector and the progress of the studies at ITU-R and ATU</b></p>
<p><u>Recommendation</u> 2/6:</p>	<p><b>DELETION OF THE DISMISSALS CONCERNING THE STATES OF AFI REGION</b></p> <p><i>The seminar recommends States of the AFI Region to delete the dismissals concerning them which appear presently in ITU radio communications Regulation.</i></p>

<p><u>Recommendation</u> <u>2/8</u></p>	<p><b>HARMONIZATION OF THE NATIONAL POSITIONS WITH ICAO POSITIONS</b></p> <p><i>In 2011, the seminar recommends that with the aim of the next preparatory meeting of the WRC 2012 planned in Algeria in July, the States of AFI Region</i></p> <ul style="list-style-type: none"> <li><i>a) Harmonize their national positions with the position of the ICAO and;</i></li> <li><i>b) Assure the effective participation of the representatives of the Civil aviation in the national delegations led by the of Telecommunications Regulations Authorities to defend this position.</i></li> </ul>
<p><u>Agenda Item 5</u></p>	<p><b>Coordination / lobbying and sharing of experience</b></p>
<p><u>Recommendations</u> <u>2/9:</u></p>	<p><b>CREATION OF A REFLECTION GROUP: ICAO/ ITU/ ANSP</b></p> <p><i>The seminar recommends the creation of a Reflexion group ICAO / ITU / ANSP placed under the coordination of ITU regional office, asked to define guidelines for the optimum management and the protection of the aeronautical spectrum in the AFI region in dialogue with the industry of the civil aviation, the Civil aviation authorities, the Telecommunications regulation agencies and institutions regional cooperation in charge of civil aviation.</i></p>
<p><u>Recommendation</u> <u>2/10:</u></p>	<p><b>REGIONAL AND INTERNATIONAL COOPERATION (MAENS ASPECTS AND INTENSIFICATION OF CAPACITIES)</b></p> <p><i>The seminar recommends the implementation of cooperation mechanisms between suppliers of aviation services in AFI region and between ANSP / AFI and ANSP / EUR for:</i></p> <ul style="list-style-type: none"> <li><i>a) The development of the spectrum management activities in AFI zone;</i></li> <li><i>b) The intensification of capacities in terms of human resources to adapt itself better to the future requirements of frequencies management and the future stakes in the Systems CNS</i></li> <li><i>c) Sharing experiences between the various actors;</i></li> </ul>

	<p style="text-align: center;"><b>COOPERATION ICAO / ANSP / ITU IN THE INTENSIFICATION OF THE OPERATIONAL CAPACITIES</b></p> <p><i>The seminar invites the ICAO and the ANSP to undertake the necessary coordination with the ITU to allow the civil aviation to benefit from plans and existing training programs and to strengthen the operational capacities in spectrum management of AFI Region.</i></p>
<p><u>Conclusion 2/4</u></p>	<p><b>DISTRIBUTION OF THE SEMINAR RESULTS AT THE SPECIALIZED GROUPS (CAFAC, APIRG, AFI / FMG, UAT.)</b></p> <p><b>LEVEL</b></p> <p><i>The seminar requests from the reporter of African Frequencies Management Group (AFI / FMG / 2) in association with the ICAO, to spread the results of these works at the specialized groups (CNS / SG, APIRG, AFI / FMG, ATU) level to carry out the consideration and to seize the regional and sub-regional structure called to be involve in the future actions Plan.</i></p>

## Annex D

### Action plan

N° Task	Actions	Actors	Deadlines
1	<i>Distribution of the seminar results</i>	ASECNA/ ICAO	<i>May, 2011: communication of ASECNA report in the regional offices of the ICAO. In July, 2011: presentation of the report to the CNS Subgroup of APIRG.</i>
2	<i>Continuation of the WRC-2012 preparation</i>	ICAO/ ANSP AFI /AAC	<i>Action continues until November, 2012 at ( national, regional, interregional and international level)</i>
	<i>Exemption from the exploitation royalties of aeronautical telecommunications stations and from usage of frequencies</i>	AAC/ICAO	<i>Action continues until obtaining of the exemption in all the AFI. Region</i>
3	<i>Participation in the WRC-2012</i>	AAC/ ANSP AFI	<i>November 2012</i>
4	<i>Consolidation of AFI data bases</i>	OACI /AAC/ ANSP AFI	<i>December 2011</i>
5	<i>Wrestling against interferences</i>	ANSP AFI	<i>Permanent action (application of procedures, acquisition of means, the coordination / bilateral / multilateral cooperation, etc.</i>
6	<i>Designation of focal points</i>	ANSP AFI /AAC	<i>October 2011</i>
7	<i>Implementation of MOU</i>	ART/AAC/ ANSP AFI	<i>December 2012</i>
8	<i>Cooperation AFI / EUR in the spectre field</i>	ANSP AFI/DGCA	<i>December 2011</i>
9	<i>Training in the statutory, technical and operational aspects bound to the management and protection of the aeronautical spectre</i>	ANSP AFI/ ICAO/IUT	<i>December 2012</i>