

INTERNATIONAL CIVIL AVIATION ORGANIZATION



REPORT OF

**THE ELEVENTH MEETING OF THE AERODROME OPERATIONS
PLANNING SUB-GROUP (AOP SG/11)**

(Dakar, Senegal, 3-7 August 2015)

PREPARED BY THE SECRETARY OF THE AOP SUB-GROUP

AUGUST 2015

THE DESIGNATIONS AND THE PRESENTATION OF MATERIAL IN THIS PUBLICATION DO NOT IMPLY THE EXPRESSION OF ANY OPINION WHATSOEVER ON THE PART OF ICAO CONCERNING THE LEGAL STATUS OF ANY COUNTRY, TERRITORY, CITY OR AREA OF ITS AUTHORITIES, OR CONCERNING THE DELIMITATION OF ITS FRONTIERS OR BOUNDARIES.

LIST OF ABBREVIATIONS

ICAO abbreviations and acronyms are contained in the ICAO PANS ABC (Doc. 8400), the ICAO Lexicon (Doc. 9294) and other relevant terminology material. Those listed here have been chosen due to their relevance to the activities of the AOP/SG and/or are frequently found in this report in order to assist in its reading.

A: Abbreviations in the AOP Table

A: 1 **General**

RFF	Rescue and firefighting service
APP	Approach control service
TWR	Aerodrome control tower
ATIS	Automatic Terminal Information Service
AFIS	Aerodrome Flight Information Service
CAPSCA	ICAO Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation GNSS Global Navigation Satellite System
RWY NO	Runway designation numbers
RC CR	Aerodrome reference code for aerodrome characteristics
RWY Type	NINST (Non instrument), NPA (Non precision approach), PA1 (Precision approach CAT 1), PA2, PA3
TWY	Taxiway to be provided
RWY LENGTH	Runway balanced field length
PAVEMENT STRENGTH	Critical aircraft for pavement strength and pavement strength expressed as all-up mass in thousands of Kg.

A: 2 **Radio navigation aids:**

ILS	Instrument landing System “X” or 1, 2, 3 if different from runway type + “D” if DME should be provided
VOR	Very high frequency Omnidirectional Range + “D” if DME is associated
NDB/L	Non Directional beacon or Locator

A: 3 **Lighting aids:**

PA	Precision approach lighting system “X” or 1, 2, 3 if different from runway type
SA	Simple approach lighting system
VA	Visual approach slope indicator “L” if PAPI or T-VASIS, “S” if PAPI or APAPI
RWY	Runway edge, threshold and runway end lighting
CLL	Runway centre line lighting
TDZ	Runway touchdown zone lighting
TE	Taxiway edge lighting
TC	Taxiway centre line lighting
STB	Stop bar lighting

B Aerodrome or identification beacon

A: 4 Marking aids:

DES	Runway designation marking
CLM	Runway centre line marking
THR	Runway threshold marking
TDZ	Touchdown zone marking
SST	Runway side strip marking
AMG	Runway aiming point marking
TWY	Taxiway centerline marking and where required, edge
HLD	Holding position marking

A: 5: Runway visual range:

TDZ	Observation representative of the TDZ
MID	Observations representative of the middle of the runway
END	Observations representative of the end of the runway

B: Other Abbreviations:

AFI	Africa-Indian Ocean Region
ANP	Air Navigation Plan
FASID	Facilities and Services Implementation Document
ASECNA	Agency for Air Navigation Safety in Africa and Madagascar
SADC	Southern African Development Community
ESAF	Eastern and Southern Africa
WACAF	Western and Central African
APIRG	AFI Planning and Implementation Planning Group

TABLE OF CONTENTS

PART I - HISTORY OF THE MEETING

Venue and Date	1
Opening Ceremony	1
Officers and Secretariat.....	1
Language	1
Agenda	2

PART II - REPORT ON AGENDA ITEMS

Agenda Item 1: AOP/SG background.....	3
Agenda Item 2: Review of the outcome of APIRG Extraordinary Meeting (10-11 July 2014)	4
Agenda Item 3: Status of Implementation of the Sub-Group Work Plan Programme and related Task Forces/Working Groups as assigned by APIRG	5
Agenda Item 4: Review of the AFI New Air Navigation Plan Structure and Development of Draft Material for endorsement by APIRG	6
Agenda Item 5: RASG/AFI-Runway Safety Programme	10
Agenda Item 6: CAPSCA Programme.....	12
Agenda Item 7: Evaluation of the Safety targets of the High level - Abuja Ministerial Conference, 2012	14
Agenda Item 8: Procedures for Air Navigation Services — Aerodromes (PANS–Aerodromes, Doc 9981) and Amendments of Annex 14, Volumes I and II	15
Agenda Item 9: Identification and development of Projects based on Aviation System Block Upgrades Modules (B0) and Regional Performance Objectives	17
Agenda Item 10: Any other business	20

APPENDIX

Appendix A: List of Participants

LIST OF DRAFT CONCLUSION/DECISION

DRAFT CONCLUSION 11/1:	CONTENTS OF TABLES RELATED TO THE AOP PARTS OF THE NEW AFI eANP.....	9
DRAFT DECISION 11/1:	PARTICIPATION TO THE AOP EXTRAORDINARY MEETING	20

PART I - HISTORY OF THE MEETING

Venue and Date

1.1 The Eleventh Meeting of the Aerodrome Operations Planning Sub-Group (AOP SG/11) was convened in Dakar, Senegal from 3 to 7 August 2015. The meeting was attended by thirty five (35) participants from seventeen (17) States and five (5) International Organizations. The list of participants is at **Appendix A** to this report.

Opening of the Meeting

1.2 Mr. Mam Sait Jallow, Regional Director of the ICAO Western and Central African Office and Mr. Magueye Marame Ndaw, Director General of the ANACIM (Senegal Civil Aviation Authority) attended the opening session of the meeting.

1.3 In his remarks, Mr. Mam Sait Jallow welcomed all the delegates and expressed his appreciation on the attendance. He also acknowledged the efforts of the States and Organizations that had made it possible for their officials to attend the meeting.

1.4 Whilst commending the AOP sub-group for a job well done to date, Mr. Jallow noted that there are still some pending tasks. As such, it is important to adjust to the new APIRG organizational structure and methodology in order to bring to fruition, the current initiatives being embarked upon in the air navigation field, and assist the AFI Region to be counted as equal partners in attaining the objectives set out in the Global Air Navigation Plan. Mr. Jallow highlighted that this being the last meeting of the AOP sub-group, the key tasks to be addressed are to identify all outstanding issues of the sub-group, re-assess their continued relevance or otherwise in the implementation of the ASBUs, and where required, to formulate them into potential projects.

1.5 Mr. Magueye Marame Ndaw, Director General of the ANACIM formally opened the meeting and wished the participants a fruitful outcome on their deliberations.

Officers and Secretariat

1.6 Mrs. Truphosa A. Chocho Manager, ANS/Aerodromes Regulation of Kenya Civil Aviation Authority chaired the meeting. She was assisted by Messrs. Arthemon Ndikumana and Nika Meheza Manzi, Regional Officers, Aerodromes and Ground Aids from ICAO ESAF and WACAF Offices respectively.

Language

1.7 The meeting was conducted in English and French languages and related documentation was distributed in both languages. Translation and simultaneous interpretation services were provided.

Agenda

1.8 The following Agenda was adopted:

- Agenda Item 1:** AOP/SG background
- Agenda Item 2:** Review of the outcome of APIRG Extraordinary Meeting (10-11 July 2014)
- Agenda Item 3:** Status of Implementation of the Sub-Group Work Plan Programme and related Task Forces/Working Groups as assigned by APIRG
- Agenda Item 4:** Review of the AFI New Air Navigation Plan Structure and Development of Draft Material for endorsement by APIRG
- Agenda Item 5:** RASG/AFI-Runway Safety Programme
- Agenda Item 6:** CAPSCA Programme
- Agenda Item 7:** Evaluation of the Safety targets of the High level - Abuja Ministerial Conference, 2012.
- Agenda Item 8:**
- Procedures for Air Navigation Services — Aerodromes (PANS–Aerodromes, Doc 9981)
 - Amendment of Annex 14, Volumes I and II
- Agenda Item 9:** Identification and development of Projects based on Aviation System Block Upgrades Modules (B0) and Regional Performance Objectives
- Agenda Item 10:** Any other business. Any other matters not specifically provided for and covered under the above agenda items, might be addressed under this agenda item.

PART II: REPORT ON AGENDA ITEMS**Report on Agenda Item 1: AOP/SG background****1. General**

1.1 Under this Agenda Item, the meeting reviewed the background of the Aerodrome Operations Planning Sub-Group (AOP/SG). The terms of reference of the Sub-Group were recalled as well as the working programme. After discussion, the meeting noted that the information in this working paper should be used by the meeting in its methodology for the identification of AOP related projects.

Report on Agenda Item 2: Review of the outcome of APIRG Extraordinary Meeting (10-11 July 2014)

2.1 The meeting reviewed the outcome of the APIRG Extraordinary Meeting (APIRG/EO) during which it was discussed and agreed on changes in APIRG organizational structure and working methods. The meeting noted from the report of the APIRG/EO that the AOP SG, as are all other existing Sub-Groups of APIRG, have been replaced by new Sub-Groups that are largely aligned with the four ASBUs Performance Improvement Areas:

1. Airport Operations
2. Globally Interoperable Systems and Data
3. Optimum Capacity and Flexible Flights
4. Efficient Flight Paths

In this respect, the following organizational structure was adopted:

- **APIRG Projects Coordination Committee (APCC);**
- **Airspace and Aerodrome Operations Sub- Group (AAO/SG);**
- **Infrastructure and Information Management Sub-Group (IIM/SG);**
- and**
- **Traffic Forecasting Group (TFG).**

2.2 The meeting also noted from the APIRG/EO report that:

- AGA expertise will be in AAO/SG;
- The tasks that require to be undertaken within the framework of APIRG will be identified in the form of Projects under the SGs, provided that APIRG may itself establish projects;
- There is less emphasis on standing bodies, in favour of Project Teams; and
- There is an enhanced focus on the participation of appropriate expertise in the Sub-Groups and Project Teams.

2.3 The meeting further noted from the APIRG/EO report that the AAO/SG will be required to focus on ASBU Performance Improvement Areas. The meeting took advantage of this last session of the AOP Sub-Group to ensure that individual delegations establish a clear common appreciation of the new arrangements as a result of the restructuring of APIRG as reflected in the APIRG/EO report.

Report on Agenda Item 3: Status of Implementation of the Sub-Group Work Plan Programme as assigned by APIRG

3.1 Under this agenda item, the meeting reviewed the outstanding APIRG Conclusions and Decisions that are still in force and related to the AOP field. The APIRG/18 acknowledged that the number of Conclusions and Decisions had become cumbersome to manage effectively and required a strategy to be developed for their streamlining. In this regard, the Meeting agreed that the Sub-Groups should review all APIRG Conclusions and Decisions since APIRG/13 meeting. The APIRG/19 noted that the Sub-Groups had completed the review and update of the Conclusions and Decisions from previous APIRG meetings. Conclusions and Decisions that were still valid were consolidated or reformulated.

3.2 The meeting recalled that, although the Conclusions and Decisions were analyzed and consolidated, there are still others that are partially or not implemented. These conclusions and decisions are related but not limited to:

- Aerodrome emergency plans;
- Aerodrome Certification;
- Training of Rescue and Fire Fighting Services (RFFS) personnel;
- Implementation of SSP and SMS;
- Aerodrome Inspector Training Requests to AFI Plan;

3.3 The meeting referred some of the outstanding matters to the identification of projects.

Report on Agenda Item 4: Review of the AFI New Air Navigation Plan Structure and Development of Draft Material for endorsement by APIRG

4.1 The meeting recalled that the International Civil Aviation Organization (ICAO) Council decided on 26 February 1997 through Council Decision 150/3 that the regional Air Navigation Plans (ANPs) should be published in two volumes: a Basic ANP containing stable plan material and, a Facilities and Services Implementation Document (FASID). The regional ANPs have been continuously amended as per regional air navigation requirements with approved amendments being recorded on hard copy.

4.2 The meeting further noted that based on a review undertaken by ICAO, the Twelfth Air Navigation Conference (AN-Conf/12) convened in Montreal, Canada in November 2012, endorsed a proposal to align the areas of applicability of regional supplementary procedures (SUPPs) and regional air navigation plans (ANPs), in order to simplify the procedures for regional performance framework management for Planning and Implementation Regional Groups (PIRGs) and to support more efficient planning and implementation of the aviation system block upgrades (ASBUs).

4.3 The meeting recalled that the AN-Conf/12 agreed to Recommendation 6/1 Regional performance framework – planning methodologies and tools regarding the alignment of regional air navigation plans with the fourth edition of the Global Air Navigation Plan (GANP) (Doc 9750). Recommendation 6/1 of the AN-Conf/12 is reflected here below as follows:

AN-CONF/12 RECOMMENDATION 6/1 - REGIONAL PERFORMANCE FRAMEWORK – PLANNING METHODOLOGIES AND TOOLS

That States and PIRGs:

- a) **finalize the alignment of regional air navigation plans with the Fourth Edition of the Global Air Navigation Plan by May 2014;**
- b) **focus on implementing aviation system block upgrade Block 0 Modules according to their operational needs, recognizing that these modules are ready for deployment;**
- c) **use the electronic regional air navigation plans as the primary tool to assist in the implementation of the agreed regional planning framework for air navigation services and facilities;**
- d) **involve regulatory and industry personnel during all stages of planning and implementation of aviation system block upgrade modules;**
- e) **develop action plans to address the identified impediments to air traffic management modernization as part of aviation system block upgrade planning and implementation activities;**

That ICAO:

- f) considers how the continuous monitoring approach to safety oversight maps to the evaluation of Member States' safety oversight capabilities concerning aviation system block upgrades;**
- g) review the current amendment process to the Regional Air Navigation Plans and recommend improvements to increase efficiencies related to the approval and maintenance of the data in the regional ANPs;**
- h) develop guidance material, on the basis of best practices employed worldwide, for the regional/local deployment of new ATM technologies, required procedures, operational approvals and continue to support States in the implementation of the aviation system block upgrades;**
- i) identify the issues, funding, training and resource requirements necessary to support a safety framework that would lay the foundation for successful implementation the aviation system block upgrades;**
- j) develop, together with industry and stakeholders, an engagement strategy to address the economic and institutional impediments to implementation of the aviation system block upgrades;**
- k) develop a mechanism for sharing of best practices for the aviation system block upgrade implementation; and**
- l) Define a methodology to ensure interregional and global harmonization of air navigation services through ANRF reporting in an effective and timely manner, and consider the employment of interregional and multi-regional fora.**

4.4 The meeting noted that ICAO Secretariat then established an Ad-hoc working group composed of a representative from each ICAO Regional Office and ICAO Headquarters, to make proposals for changes to the regional ANPs, which included the development of a new structure, format and content. The Working Group reviewed the limitations of the current regional ANPs and proposed necessary changes to be applicable to regional ANPs for approval, based on the new developments in air navigation field, including the outcome of the AN-Conf/12 and revised Global Air Navigation Plan.

4.5 The meeting was informed that the Working Group developed an ANP template comprising of three volumes instead of two. ANP Volume I contains stable plan elements whose amendment necessitates approval by the Council such as the assignment of responsibilities to States for the provision of aerodrome and air navigation facilities and services in accordance with Article 28 of the Convention on International Civil Aviation (Doc 7300).

4.6 The material to be included in Volume I should minimize the requirement for frequent amendment. Volume II contains dynamic plan elements, the amendment of which does not require approval by the Council (approval is by regional agreement involving the relevant PIRG). ANP Volume III contain dynamic/flexible plan elements providing implementation planning guidance for air navigation systems and their modernization taking into consideration emerging programmes such as the ICAO Aviation System Block Upgrades (ASBUs) and associated technology roadmaps described in the Global Air Navigation Plan (GANP) (Doc 9750).

4.7 The meeting noted that the draft eANP template was reviewed by the Air Navigation Commission in May 2014 and approved by the Council at its 202 Session held in June 2014. The Council also endorsed the following action plan for the development and approval of the new eANP:

ANP volume	eANP activity/task	Responsible	Completion date
Vol I, II & III	Population of eANP with existing data completed	Regional Offices	September 2014
Vol I, II & III	Agreement on the content of the eANP	PIRGs/States	Mid 2015
Vol I	Approval of Volume I of eANPs by the Council	Regional Offices/ANB	End 2015
Vol II	Approval of Volume II of eANPs by regional agreement involving the relevant PIRG	Regional Offices/PIRGs	End 2015
Vol III	Development and approval of Part II under PIRG responsibility. Inclusion of Volume III on web-based platform.	Regional Offices/PIRGs/ANB	End 2015
Consequential amendments	Amendments to existing ICAO documentation related to ANPs to ensure harmonization, including the Regional Office Manual, and review of the applicability of the Uniform methodology for the identification, assessment and reporting of air navigation deficiencies to the new ANP	ANB	Mid 2015

4.8 The meeting further noted that upon the approval of the new ANP template, the Secretariat was to conduct consequential amendments to existing ICAO documentation to ensure harmonization. Based on the work plan and template endorsed by the Council, the Secretariat developed and populated the AOP parts of the template as follows:

a) Volume I:

- i. Part II: Table AOP I-1 Text– International Aerodromes Required in the AFI Region;
- ii. Part II: Table AOP I-1 – International Aerodromes Required in the AFI Region;

b) Volume II:

- i. Part II: Table AOP II-1 Text – Requirements and Capacity Assessment in the AFI Region;
- ii. Part II: Table AOP II-1 - Requirements and Capacity Assessment in the AFI Region;

4.9 Based on the information reflected in the Tables of Volume I and Volume II of the draft eANP, the Sub-Group formulated the following Conclusion:

DRAFT CONCLUSION 11/01 CONTENTS OF TABLES RELATED TO THE AOP PARTS OF THE NEW AFI eANP

That, the information contained in Tables related to the AOP parts of the new AFI eANP be reviewed and updated by States not later than 30 September 2015.

Report on Agenda Item 5: RASG/AFI-Runway Safety Programme

5.1 Under this agenda item, the meeting reviewed the progress of the runway safety programme through the RASG AFI initiatives which aims to assist States in establishing runway safety teams at international aerodromes, and highlighted the challenges facing States in the AFI Region in achieving the Abuja safety targets as discussed under Agenda Item 7 of this report.

5.2 The meeting recalled that ICAO conducted the Global Runway Safety Symposium in Montreal, from 24 to 26 May 2011. The symposium was an important first step in coordinating a global effort for improving runway safety by identifying what a State can do to improve runway safety outcomes, including determining a common framework for the enhancement of runway safety. One of the recommendations of the Symposium is to establish Local Runway Safety Teams (LRST) at the international airports. Since then, Runway Safety Partners have developed and promoted solutions through Regional Runway Safety Seminars worldwide and in particular within the AFI region.

5.3 The meeting noted that ICAO published in 2015 the second edition of the Runway Safety Team Handbook which is the reference manual for establishing Runway Safety Teams (RSTs). This handbook, which describes the components of an effective Runway Safety Team (RST), serves as a single reference for RST activities and promotes the sharing and exchange of safety information between stakeholders. To date, several guidance materials have been developed by various partners. All these tools and guidance materials are available on the ICAO public website (www.icao.int/safety/runwaysafety). Finally, several seminars were held worldwide, including four in the AFI Region, three took place in Cape Town/South Africa, Accra/Ghana and Agadir/Morocco in 2012; the fourth was held in Livingstone/Zambia in 2014.

5.4 The meeting recalled that the Second Meeting of the Regional Aviation Safety Group for the AFI Region (RASG-AFI/2) held in Dakar, Senegal, from 1 to 2 November 2013, adopted a conclusion on Runway safety which is as follows:

« CONCLUSION 2/7: REGIONAL RUNWAY SAFETY PROGRAMMES

That:

- a) **States establish Runway Safety Teams (RSTs) at all international aerodromes; and**
- b) **States are encouraged to participate in Seminars / Workshops and other training activities being conducted in the field of Runway Safety. »**

5.5 The meeting recalled that, out of 10 accidents recorded in Africa in 2013, 6 were related to runway safety. This proportion is more pronounced in 2014 when out of 9 recorded accidents in Africa, 7 were related to runway safety. This illustrates the importance of early establishment and operation of runway safety teams at airports to mitigate risks related to runway safety.

5.6 To assist States in their efforts to implement proposed solutions to improve runway safety, the AFI Regional Aviation Safety Group (RASG AFI) has established two Runway Safety Go-Teams for the WACAF and ESAF States in accordance with the terms of reference. The Go-Teams are responsible for assisting airports in AFI States in establishment, training and monitoring activities of local Runway Safety Teams.

5.7 The aim of the RASG-AFI Go-Team programme is to coordinate and focus on collaborative international assistance for the implementation of specific solutions to safety priorities. Runway Safety is a global safety priority. The use of coordinated and regionally deployed Go-Teams allows the use of existing expertise to globally foster the establishment and operation of RSTs. The objective of a Runway Safety Go-Team is to assist the State in establishing a RST at its international airports, by supporting the implementation stage through technical assistance, training, seminars, assessments and surveys and provision of guidance material. Once the RST is established, its work will be continuously coordinated by the ICAO Regional Office and the Regional Aviation Safety Group (RASG), which are responsible for assisting implementation efforts and associated achievements related to the regional targets and the ICAO Global Aviation Safety Plan.

5.8 The meeting noted the methodology used by the Go-Teams of RASG-AFI to establish and train RSTs at the international airports including an initial visit of 3 days and a follow-up visit of 2 days which will be conducted three months after the initial visit. While inviting States to use the RASG-AFI framework for the establishment of Runway Safety Teams at international aerodromes, the meeting agreed to take into account the Runway safety programme requirements when identifying projects.

5.9 As part of the strategy of prevention of the runway incursions and excursions, the meeting was also provided with presentations from DCP Airports on runway maintenance and rubber removal and OCEM on runway lighting systems, signs and markings.

Report on Agenda Item 6: CAPSCA Programme

6.1 Under this agenda item, the meeting recalled the existence of the ICAO Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation (CAPSCA) and its activities. The meeting was provided with relevant information on the Ebola virus disease outbreak in Africa and its impact on air transport.

6.2 The meeting was reminded of the important role the aviation sector must play in preventing the spread of communicable disease by air as recognized by Article 14 of the Chicago Convention. During and since the Severe Acute Respiratory Syndrome (SARS) outbreak in 2003 more attention has been given to the implications of Article 14 and several health events have highlighted the need for a greater understanding of the issues. The Ebola outbreak of 2014 highlighted the need for improved information collection and sharing, and collaboration between the public health and aviation sectors.

6.3 The meeting further recalled that ICAO, learning from these public health events, developed and included specific Standards and Recommended Practices (SARPs) in Annexes 6, 9, 11, 14 and 18 to the Chicago Convention, as well as guidelines for States, airports, air traffic services and airlines for reducing the risk of the spread of communicable diseases through air travel. These specific Standards and Recommended Practices address contingency plans in order to prevent the spread of communicable diseases by air transport, and establish suitable institutional arrangements to coordinate efforts by Contracting States and other members of the international civil aviation community aimed at protecting the health of passengers and crews. The protection of the health of passengers and crews on international flights was recognized by the Thirty-fifth Session of the ICAO Assembly in 2004 (Resolution A35-12) as an “integral element of safe air travel” and the Universal Safety Oversight Audit Programme (USOAP) includes audit Protocol Questions (PQs) on the PHE related SARPs. In accordance with the provisions in ICAO Annex 9, States are required to establish a National Aviation Public Health Emergency Preparedness plan. This Plan describes the measures to be adopted during a Public Health Emergency of International Concern (PHEIC), in compliance with the relevant articles in the IHR 2005 and Annexes 6, 9, 11 and 14 to the Convention on International Civil Aviation. Each National Aviation Public Health Emergency Preparedness plan should be a programme that is coordinated between the Aviation and Public health sectors.

6.4 Although Article 14 of the Convention recognizes the involvement of aviation in helping to manage public health events “in close consultation with the agencies concerned with international regulations relating to sanitary measures applicable to aircraft”, little attention has traditionally been given to the subject by States. Indeed, National Aviation Public Health Emergency Preparedness plans do not exist in several States in the region. And where they exist, the scope and tasks are very limited. Moreover, Civil aviation authorities, Airports, Airlines, Air navigation services providers, handling companies and the other stakeholders (Customs, immigration, ...) are often not much involved considering and believing that this is a purely medical issue.

6.5 The meeting recalled that ICAO has been coordinating a global effort to improve preparedness planning and responses to public health events that affect the aviation sector in different regions of the world, through its CAPSCA programme (www.capsca.org). CAPSCA is an ICAO global initiative to improve preparedness planning and responses to public health events that affect the aviation sector, such as an epidemic or a nuclear accident. It provides an opportunity for relevant stakeholders to consider how to plan for and manage public health events that impact the aviator sector. The purpose of CAPSCA is to assist States with implementation of the WHO International Health Regulations (2005) in the aviation sector (airports and airlines) by promoting inter-sectoral communication and collaboration, and ensuring the aviation sector is ready to respond to a public health event. The programme which is in place in Africa since 2009, provides Assistance Visits to States and airports, organizes meetings and conduct trainings. It develops and improves guidance and tools which are available on the website www.capsca.org. CAPSCA has been recognized as a useful programme by two ICAO Assemblies, in 2010 (Resolution A37-13) and in 2013. CAPSCA Africa comprises 33 Member States and holds annual regional multi-sector CAPSCA meetings. Some Technical Advisors provided by States were trained and participate to CAPSCA Assistance Visits.

6.6 On 8 August 2014, the World Health Organization (WHO) declared the Ebola Virus Disease Outbreak in West Africa a Public Health Emergency of International Concern (PHEIC) in accordance with the International Health Regulations (2005). ICAO closely collaborates with WHO over the Ebola virus disease Outbreak and close liaison is also being maintained with contracting States. The WHO Ebola Emergency Committee recommended that exit screening be undertaken at international airports of affected States to prevent symptomatic patients and their contacts from travelling.

6.7 The Ebola outbreak resulted in a number of airlines cancelling flights to and from affected States in West Africa. Different reasons have been reported for this, including lack of commercial viability, crew members unwilling to operate, inadequate health care facilities for transiting crew, risk of importing disease into an unaffected State. The result has been, according to WHO, delays in transport of health care workers and medical supplies to affected areas, with lives being jeopardized as a consequence. A number of States issued general flight and passenger bans, contrary to WHO recommendations. This affected not only commercial passenger flights but also air ambulance and humanitarian flights. Some aircraft captains were reported to have refused to carry properly packaged biological samples being sent for specialized laboratory analysis. The economic effects of cancelled flights, for any reason, can have significant deleterious effects on the economy of a State, and on the aviation industry and supporting entities.

6.8 The meeting concluded that States need to prepare for widespread of communicable diseases and this preparedness in the aviation sector requires communication and collaboration between the aviation and public health sectors.

Report on Agenda Item 7: Evaluation of the Safety targets of the High level - Abuja Ministerial Conference, 2012

7.1 Under this agenda item, the meeting evaluated the implementation of the Safety targets of the High level - Abuja Ministerial Conference of 2012 in the aerodromes field. During this Conference, specific and measurable aviation safety targets were established in order to enhance safety standards and implement all safety initiatives in the region. Although most of these objectives have a link with the field of aerodromes operations, only the areas listed below were discussed, as they are considered to have direct impact on the aerodromes field.

Abuja Safety targets

- a) Progressively reduce the African accident rate to be in line with the global average by the end of 2015.
- b) Reduce runway related accidents and serious incidents by 50% by the end of 2015.
- c) As a matter of urgency, States resolve all identified Significant Safety Concerns created by a State in allowing the holder of an authorization or approval, to exercise the privileges attached to it without meeting the minimum requirements of the State and ICAO.
- d) Progressively increase the Effective Implementation (EI) score of ICAO's USOAP results to no less than 60% (35% or 19 States of all African States by the end of 2013, 70% or 38 States of all African States by the end of 2015 and 100% or 54 of all African States by the end of 2017).
- f) Implement State Safety Programme (SSP) and ensure that all Service Providers implement a Safety Management System (SMS) by the end of 2015.
- g) Certify all International Aerodromes by the end of 2015.

7.2 For the reduction of runway related accidents and serious incidents, the meeting noted that the rate of accidents related to runway safety in the AFI Region increased by 50 % in 2014 at 8.4 accidents per million of commercial flights, where the world average remained at 2.4%. Regarding the resolution of identified Significant Safety Concerns (SSCs), to date SSCs exist in 6 AFI States. Fortunately, none of these SSCs is related to aerodromes. However, taking into account outcomes of Regional Office Safety Team (ROST) missions and Airport Excellence (APEX) in Safety reviews, risks of SSCs for aerodromes are still there in some States. For the Progressive increase of the Effective Implementation (EI) score of ICAO's USOAP results to no less than 60%, the meeting noted that only 16 States are above 60% of overall EI with a target of 38 States by the end of 2015. 17 States are above 60% in AGA. However, the average of 39.44% in AGA against 44.4% for overall shows that the level of implementation in the aerodrome fields is still low. Regarding the SSP and SMS implementation, the low EI of the CE 8 - *Resolution of safety concerns* requires additional efforts. Finally, the meeting raised great concern about the certification of aerodromes where only 22.55% of international aerodromes are certified. Moreover certification of some airports did not follow the appropriate procedures.

7.3 The meeting invited States to take appropriate action in the aerodromes field for the attainment of the Abuja Safety targets and pointed out the urgency of formulation of projects related to these subjects.

Report on Agenda Item 8: Procedures for Air Navigation Services - Aerodromes (PANS – Aerodromes, Doc 9981) and Amendments of Annex 14, Volumes I and II

8.1 The meeting discussed under this agenda item the PANS–Aerodromes (Doc 9981) and the amendments and proposals for the amendment of PANS–Aerodromes and Annex 14, Volumes I and II.

8.2 The meeting recalled that on 26 June 2014 the Air Navigation Commission, acting under delegated authority, approved the first edition of the Procedures for Air Navigation Services - Aerodromes (PANS- Aerodromes, Doc 9981). The document was approved on 20 October 2014 by the President of the Council on behalf of the Council in accordance with established procedure. This first edition of PANS–Aerodromes addresses priority areas revealed by the ICAO Universal Safety Oversight Audit Programme (USOAP) audits in the areas of aerodrome certification, conduct of safety assessments and compatibility studies. The provisions therein specify, in greater detail than the Standards and Recommended Practices (SARPs) in Annex 14 - Aerodromes, Volume I - Aerodrome Design and Operations, operational procedures to be applied by both aerodrome regulators and operators in those priority areas to ensure aerodrome operational safety and to improve overall system capacity and efficiency in a globally harmonized manner. The PANS–Aerodromes will become applicable on 10 November 2016. According to the decision taken by the Council, on 1 October 1973, States are requested to publish in their Aeronautical Information Publication a list of any significant differences which will exist on 10 November 2016 between the provisions of the PANS–Aerodromes and their national regulations and practices.

8.3 Amendment 12 to Annex 14, - Aerodromes, Volume I to the Convention on International Civil Aviation- Aerodrome Design and Operations was adopted by the Council at the fifth meeting of its 204th Session on 4 March 2015, in order to enhance aerodrome safety and efficiency in a globally harmonized manner by referencing the approved procedures of the first edition of the PANS-Aerodromes. Amendment 12 will become applicable on 10 November 2016. States are requested to notify any differences and compliance before 10 October 2016.

8.4 The meeting recalled the outstanding proposals for the amendment of PANS–Aerodromes and Annex 14, Volumes I and II:

- AN 4/1.1.54-14/97 of 19 December 2014: Proposals for the amendment of Annex 14, Volumes I and II and Annex 15;
- AN 4/1.1.55-15/30 of 29 May 2015: Proposals for the amendment of Annexes 3; 6, Parts I and II; 8; 14, Volume I; 15; PANS-Aerodromes; and PANS-ATM relating to the use of an enhanced global reporting format for assessing and reporting runway surface conditions;
- AN 4/1.1.56-15/51 of 10 July 2015: Proposals for the amendment to Annex 14, Volume I and the PANS-ATM (Doc 4444) relating to the runway incursion warning system (ARIWS);

- AN 4/1.1.57-15/53 of 15 July 2015: Proposals for the amendment to Annex 14, Volume I relating to visual aids for navigation and aerodrome design (Objects on runway and taxiway strips, Slopes on taxiway strips, Runway-holding position marking, Visual approach slope indicator systems, Information sign, ...).

8.5 The meeting drew the attention of the States on actions to undertake, particularly the incorporation of these amendments to their regulatory framework, the notification and publication of differences and responses to the State letters for the proposals for the amendments.

Report on Agenda Item 9: Identification and development of Projects based on Aviation System Block Upgrades Modules (B0) and Regional Performance Objectives

9.1 The Meeting recalled that the Twelfth Air Navigation Conference (AN-Conf/12) under Recommendation 6/1–Regional performance framework–planning methodologies and tools, inter alia, requested States and PIRGs to focus on implementing the ICAO Aviation System Block Upgrades (ASBUs) Block 0 Modules according to their operational needs, recognizing that these modules were ready for deployment. At its 19th Meeting in Dakar, Senegal from 28 to 31 October 2013, the APIRG/19 discussed the alignment of the Regional Air Navigation System Implementation Plan with the ASBU Methodology. In this regard, the APIRG/19 Meeting agreed that, within the ASBU framework, due consideration should be given to planning, implementation, monitoring and reporting aspects. Furthermore, project management principles should be applied by the APIRG and contributory bodies for ASBUs, as necessary. The Extraordinary Meeting of APIRG (APIRG/EO) was convened in Lusaka, Zambia, 10-11 July 2014. Amongst others, the Group agreed on changes in its organizational structure and working methods, and accordingly the Decision EO/01: Reorganization of APIRG. Key developments in the changes include the following:

- (a) Significant reduction of subsidiary bodies
- (b) Establishment of project approach to implementation which features
 - I. Projects**
 - II. Project Teams**
- (c) Revision in the procedures (APIRG Handbook) for participation in the activities of the Group, with increased focus on improved utilization of existing expertise.

9.2 ICAO ASBUs Block 0 include Airport Collaborative Decision Making (A-CDM) which is a concept aiming at improving Air Traffic Flow and Capacity Management (ATFCM) at airports by reducing delays, improving the predictability of events and optimizing the utilization of resources. Implementation of A-CDM can enhance surface operations and safety by making airspace users, ATC and airport operators better aware of their respective situation and actions on a given flight. Through collaborative procedures, comprehensive planning and pro-active action, implementation of A-CDM can also see a major reduction in on-ground and in-air holding of aircraft thereby reducing fuel consumption and also reduction of noise and air pollution in the vicinity of airports. The meeting noted that A-CDM is not just a system, hardware or software, meeting or telephone call; it involves culture change, handling of sensitive data, procedural changes and building confidence and understanding of each partners operational processes.

9.3 The Extraordinary meeting of APIRG noted that the Projects will be derived from ASBU methodologies and agreed on regional performance objectives adopted by APIRG. The projects will be carried out by teams of Experts provided by States and concerned International Organizations. The Group also agreed that Project Teams may carry out one or more projects and may either report directly to APIRG or to the Sub-Groups depending on the nature of the project.

9.4 In the light of the above discussions, the meeting identified projects from the Regional Performance Objectives, existing tasks and activities within the framework of APIRG, the context of Annex 14 provisions as well as ASBUs modules as prioritized by APIRG/19. The following projects were identified:

- Training and qualification of Technical staff (Regulators & Airport operators)
- Aerodrome Rescue and Firefighting Services (RFFS)
- Aerodrome Emergency Planning (AEP), including Public Health emergencies
- Aerodrome data management (determination, reliability and publication)
- Wildlife/ Environmental/ Land use Management/ obstacle control
- Implementation of Runway safety programmes at Aerodromes
- Aerodrome Maintenance and Runway conditions reporting
- Establishment and implementation of A-CDM
- Aerodrome Certification (SMS, regulatory framework, procedures and manuals, ...)

9.5 In addition, projects were grouped and assigned to Teams as follows. Details of the implementation of the projects and performance indicators were developed.

Project Team 1

- Training and qualification of Technical staff (aerodrome inspectors, aerodrome operator)
- Wildlife, Environmental & Land use Management/ Obstacle Control

Project Team 2

- Aerodrome Rescue and Firefighting Services (RFFS)
- Aerodrome Emergency Planning (AEP), including Public Health Emergencies

Project Team 3

- Aerodrome Maintenance and Runway Conditions Reporting
- Aerodrome data management (determination, reliability and publication)
- Establishment and implementation of A-CDM

Project Team 4

- Aerodrome Certification (SMS implementation, regulatory framework and operator documentation)
- Implementation of Runway safety programmes at aerodromes

9.6 Due to the low participation of States to the AOP SG/11, the meeting agreed to refer the assignment of Teams to an Extraordinary AOP meeting, to be held after the next APIRG meeting as stipulated in the following Decision.

DECISION 11/1: PARTICIPATION TO THE AOP EXTRAORDINARY MEETING

That:

- a) **ICAO Regional Offices should convene an extraordinary AOP meeting to discuss and assign Projects Teams; and**
- b) **States should ensure the participation of at least two Aerodromes experts with good experiences in the AOP activities.**

Report on Agenda Item 10: Any Other Business

10.1 Under this Agenda Item, Kenya presented a paper on the use of retro-reflective lighting for airfields where there would otherwise have been no lighting. Taking note of the presentation of Kenya, the meeting observed that the use of retro-reflective lighting for airfields has not been yet recommended by ICAO.

10.2 There being no other business the meeting was officially closed by Mr. Gaoussou Konate, Deputy Regional Director of the ICAO Western and Central African Office.

**ELEVENTH MEETING OF THE AERODROME OPERATIONS PLANNING SUB-GROUP
(AOP/SG/11) (Dakar, Senegal, 3 – 7 August 2015)**

List of Participants

COUNTRY/ ETAT	NO.	NAME/NOM	DESIGNATION/TELEPHONE/FAX/ EMAIL
ANGOLA	1.	AKEITO NETAY	Head of Aerodromes and Infrastructures National Institute of Civil Aviation (INAVIC) Rua Miguel de Melo, 6° Andar, Mutamba, Luanda – Angola Cell.:+244-923306715 Fax: +244 222 390529 netay.akeito@inavic.gv.ao
	2.	MANZODILA EDUARDO	Air Navigation (ANS) Inspector National Institute of Civil Aviation (INAVIC) Luanda - Angola Tel:+244-924519702 Fax:+244-222-390529 eduardo.manzodila@inavic.gv.ao emanzodila06@hotmail.com
COTE D'IVOIRE	3.	AYEBI HENRI JACQUES ASSI	Sous-Directeur Aérodrôme Autorité Nationale de l'Aviation Civile (ANAC) - Côte d'Ivoire Tel:+255-21-58-6900 Cell:+ 225-05-9601-63 Fax:+ 225-21-27-6346 assiyebi@yahoo.fr
	4.	MEMAN KAMOHAN	Chef Service Aérodrôme Autorité Nationale de l'Aviation Civile (ANAC) - Côte d'Ivoire Tel:+225-21-58-6900 Cell:+225-05-68-6637 Fax:+225-21-27-6346 kamohanmeman@yahoo.fr
ETHIOPIA	5.	HANNA TEGEGNETWORK BELIHU	Director, Aerodrome Safety & Standards Ethiopian Civil Aviation Authority Addis Ababa – Ethiopia Tel:+251-0116650255 Cell:+251-911500018 Fax:+251-11650281 hannameklit@yahoo.com ecaa.ssd@ethionet.et
GUINEA	6.	YOMBOUNAUD ABDELKADER	Directeur Général Adjoint Gestionnaire de l'Aéroport BP : 3126- Société de Gestion et d'exploitation de l'Aéroport de Conakry Tél :+ 00224 656 999.002 yombounaudabdelkader@yahoo.fr
		TOLNO FARA	Chef de la Section Navigation et Infrastructure à la Direction Nationale de l'Aviation Civile (DNAC) BP : 95 Aéroport de Conakry, République de Guinée Tel:+224 664 449 889/ +224 655 756 375 Fax : 41 35 77 / 45 34 57 tolnofara1@yahoo.fr

COUNTRY/ ETAT	NO.	NAME/NOM	DESIGNATION/TELEPHONE/FAX/ EMAIL
GUINEA		ZEZE BEAVOGUI	Cadre chargé des Aéroports de l'Intérieur et des Moyens généraux (DAIMG) à la Direction Générale de l'Agence de la Navigation Aérienne BP : 3025 Aéroport Conakry Gbessia, République de Guinée Tel :+224 622 560 197 Fax:41 35 77 /45 34 57 beavoguizeze80@gmail.com
KENYA	7.	PETER MUNYAO	Chief Ground Operations Inspector Kenya Civil Aviation Authority (KCAA) Nairobi – Kenya PO Box 30163-00100 Nairobi Tel:+254-20-6827556 Fax:+254-20-6822300 pmmunyao@kaa.or.ke pmmunyao2010@gmail.com
	8.	LAWRENCE K. AMUKONO	National Continuous Monitoring Coordinator Kenya Civil Aviation Authority (KCAA) Nairobi – Kenya Tel:+254-20-6827556 Cel: +254 722 349320 Fax:+254-20-6822300 lamukono@kaa.or.ke
	9.	HARRISON MACHIO	Manager Safety & Operations Kenya Airports Authority Nairobi - Kenya Tel:+254-20-6611000 Fax:+254-20-6822078 harrison.machio@kaa.go.ke
LESOTHO	10.	SEKONYELA LETSOAKA	Airport General Manager Department of Civil Aviation Maseru - Lesotho Tel:+266-22350692 Cell:+266 58851290 sekonyela@yahoo.com
MALI	11.	CISSE HAMADOUNE	Chef Service Travaux et Aéroports Tél : +223 7603 63 39 Fax :+223 2020 61 77 hamadoune@yahoo.com
MAURITANIE	12.	MBODJ NDOUDORY ALIOU	Directeur de la Sécurité des Aéroports ANAC Mauritanie MET BP 91, Nouakchott, R.I. de Mauritanie Tel : +22 45 24 40 05 Fax : +222 45 25 35 78 ndoudanac@yahoo.fr
	13.	DIOP DRAMANE	Directeur Technique Société des Aéroports de Mauritanie Aéroport de Nouakchott BP : 5605 Tel : +222 3624 25 20 Fax : +222 4525 88 59 diopdramane@sam.mr
MOZAMBIQUE	14.	MUTEREDA EDUARDO	Airport Operations Director- Airports de Moçambique Av. Acordos de Lusaka N° 3267 CP : 2631 Maputo-Moçambique Tel : + 258 825 13 58 60 Fax : + 258 214 50 36 eduardo.mutereda@aerportos.co.mz

COUNTRY/ ETAT	NO.	NAME/NOM	DESIGNATION/TELEPHONE/FAX/ EMAIL
NAMIBIA	15.	CHRIZELDA GEORGE	Aerodrome Safety and Certification Min. Works and Transport Civil Aviation Directorate of Civil Aviation Windhoek Namibia Tel:+264-61-702264 Cell:+264-813253235 Fax:+264-61-702244 georgec@dca.com.na
NIGER	16.	DJIBO MAHAMADOU	Chef de la Division Aéroports et Infrastructures Aéroportuaires Agence Nationale de l'aviation Civile ANAC – Niger Tel:+00-227-20723267/96549167 Fax:+00227-20738056 djibmahamad@yahoo.fr
	17.	OUSMAN SEYDOU FATOUMATA	Chef du Service Normes et Développement des Infrastructures Aéroportuaires Agence Nationale de l'aviation Civile ANAC – Niger Tel:+00-227-20723267/90558849 Fax:+00-227-20738056 fatouseyd@yahoo.fr
REPUBLIQUE DEMOCRATIQUE DU CONGO	18.	MBO BOLOMI	Chef de Section Homologation des Aéroports République Démocratique du Congo Tel:+ +243 81 22 37 602 info@aacrdc.org
SENEGAL	19.	NDOUMBE NIANG THIOUNE	Chef de Département de la Navigation Aérienne de l'ANACIM Aéroport LS. Senghor BP : 8184 Dakar Yoff Sénégal Tél : +221 77 362 25 52 Ndoumbe.niang@anacim.sn
	20.	ASSANE BOUSSO	Chef Unité AIM de l'Agence des Aéroports du Sénégal (ADS) Tel : + 221 77 813 49 46 abouso2006@hotmail.com
	21.	SEYNABOU DIEYE	Chef Pôle Navigation Aérienne de l'Agence des Aéroports du Sénégal (ADS) BP: 8412 Dakar-Yoff Tel:+00221 77 807 32 89/33 869 53 27 diey_nab@yahoo.fr
	22.	BADARA DIOP	Chef du Service Sécurité et Normes d'Aéroports ANACIM BP : 8184 Dakar- Sénégal Tel : + 221 77 554 39 27 Fax : + 221 820 04 03 badara.diop@anacim.sn
	23.	MAMADOU BADJI	Responsable Installations d'honneur de l'ADS Tél: +00221 177 333 93 26 badjimodou@hotmail.fr

COUNTRY/ ETAT	NO.	NAME/NOM	DESIGNATION/TELEPHONE/FAX/ EMAIL
SENEGAL	24.	OULIMATA DIONE DIAKHATE	Commandant d' Aérodrôme de la Représentation de l'ASECNA au Sénégal Tél : +00221 77 643 55 03 dioneoul@asecna.org
	25.	CAPTAIN ABABACAR SALL	Head of Safety and Security Senegal Airlines Tel: +00221 77 740 14 32 ababacar.sall@senegalairlines.aero
	26.	LY SOULEYMANE	Cadre Navigation Aérienne et Aérodrômes Aéroport LSS BP : 8184 Dakar-Yoff Sénégal Tél : +00221 77 44 05 524/ 33 869 53 35 Fax : +00221 33 820 04 03/820 39 67 souleymane.ly@anacim.sn/ leysou@hotmail.com
SIERRA LEONE	27.	MACAULEY EBENEZER WALTON ADETUNJI	Head of Airport Operations Sierra Leone Airports Authority 15 Rawdon Street- Freetown Tel:+ 232 76 606061 Fax:+ 232 22 22 38 18 ebenezermacauley@yahoo.com ea.macauley@sllaa.sl
SOUTH AFRICA	28.	NELSON MOTLAGOILWE NKABITI	Senior Manager: Aerodromes and Facilities South African Civil Aviation Authority Pretoria - South Africa Tel:+27-545-1091 Fax:+27-86-641-2746 nkabitin@caa.co.za
TANZANIA	29.	MWANAISHA HAMISI SALUM	Principal Aerodrome and Ground Aids Inspector (PAGI) Tanzania Civil Aviation Authority United Republic of Tanzania Tel:+255-22 2198196 Cell:+255-68 4325755 Fax:+255-2844304 msalum@tcaa.go.tz mwanaishasalum@yahoo.co.uk
TCHAD	30.	NGARTOLNAN NGARBE	Directeur des Aérodrômes Autorité de l'Aviation Civile du Tchad (ADAC) - République du Tchad Tél : +235 66 28 9528 ngarbesim@yahoo.fr
	31.	ALI MAHAMAT MOUSSA	Responsable CNS à l'ADAC Autorité de l'Aviation Civile (ADAC) ADAC BP : 96 Ndjamenas- Tchad Tel : +00235 6311 11 22/9311 11 22 ali_tanda@yahoo.fr
ASECNA	32.	PIERRE TSATSABI	Chargé Gestion Opérations Sauvetage et lutte contre l'Incendie - Direction Générale – ASECNA - Sénégal - Dakar Tel: +221 77 489 44 42/33 864 56 75 pierrepaide@yahoo.fr/ tsatsabipie@asecna.org

COUNTRY/ ETAT	NO.	NAME/NOM	DESIGNATION/TELEPHONE/FAX/ EMAIL
ASECNA	33.	NYNTCHÉ OURO-SAMA	Expert Opération ATS Direction Générale – ASECNA Dakar- Sénégal Tel: +221 77 456 17 49 Ouro-samany@asecna.org
	34.	SARR ALI	Chef Unité AIM Sénégal/ Représentation ASECNA Aéroport LSS BP: 8132 Tél: + 221 33 869 22 40/77 647 51 81 Faxx + 221 33 820 06 00 sarrali@asecna.org / alisarr2000@yahoo.fr
DCP AIRPORTS	35.	CHAUVET PIERRE	Président de la Société DCP Airports 17 Allée de la Fontaine au Roy 95270 St Martin du Tertre France Tel :+ 33 1 30 35 65 22/Fax : 33 1 30 79 13 dcp@dcpairports.fr
ICAO	36.	NIKA MEHEZA MANZI	Regional Officer AGA- Aerodromes and Grounds Aids ICAO WACAF nmanzi@icao.int
	37.	ARTHEMON NDIKUMANA	Regional Officer AGA- Aerodromes and Grounds Aids ICAO ESAF ANdikumana@icao.int
	38.	NDEYE KHOUDIA DIALLO	Team Assistant AGA-AVSEC WACAF Office ndiallo@icao.int
IFALPA	39.	CAPTAIN ELI BADJI	Regional Vice President IFALPA AFI/West Region Dakar – FANN – Senegal Tel:+221-77-278-9000 eli.badji@gmail.com
OCEM ENERGY TECHNOLOGY	40.	MR. MICHELE SAPORETTI	Area Sales Manager OCEM Energy Technology (Business unit: OCEM Airfield Technology) –Italy Tel:+390516656611 Cell:+393442128025 Fax:+390516656677 michele.saporetti@ocem.com
INTERPRETE	41.	SERIGNE DIAGNE	Interpréte Tel:+ 00221 77 644 36 37 serdiagne@yahoo.com
	42.	NDIACK BA	Interpréte ndba50@hotmail.com
	43.	MARIE AIDA DIOP	Interpréte mariaida02@hotmail.com mariaida@orange.sn marieaida.diop@gmail.com ma.diop-wane@aiic.net