



ICAO

SAFETY

Africa-Indian Ocean (AFI) Aviation Safety Symposium

Dakar, Senegal, 27 to 28 May 2014



The material in this report has not been considered by the International Civil Aviation Organization.
The views expressed therein should be taken as the outcomes of the Symposium,
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**ABBREVIATIONS**

AATO	Association of African Aviation Training Organizations
ACI	Airports Council International
ACIP	AFI Comprehensive Implementation Programme
ACSAC	Community Civil Aviation Safety and Security Oversight Agency
ADS	Agency of Senegal Airports
AFCAC	African Civil Aviation Commission
AfDB	African Development Bank
AFI Plan	Comprehensive Regional Implementation Plan for Aviation Safety in Africa
AFI-CIS	AFI-Cooperative Inspectorate Scheme
AFPP	African Flight Procedure Programme
AFRAA	African Airlines Association
AGA	Aerodromes and Ground Aids
AIG	Aircraft Accident and Incident Investigation
ANAC	National Civil Aviation Agency
ANACIM	National Civil Aviation and Meteorological Agency
ANS	Air Navigation Services
ANSPs	air navigation service providers
AOC	Air Operator Certificate
AOV	Air Traffic Safety Oversight Service
APEX	Airport Excellence in Safety
APIRG	AFI Planning and Implementation Regional Group
APV	Approach Procedure with Vertical guidance
ARMA	African Regional Monitoring Agency
ASECNA	Agency for Air Navigation Safety in Africa and Madagascar
ASSA	Aviation Safety Oversight Agency
ATA-AC	Amélioration du Transport Aérien en Afrique Centrale
ATNS	Air Traffic and Navigation Services
AU	African Union
AvDeCo	Aviation Development Coordination Database
BAG	Banjul Accord Group
BAGASOO	Banjul Accord Group Aviation Safety Oversight Organization
CAA	Civil Aviation Authority
CAASP	Central Africa Aviation Safety Project
CANSO	Civil Air Navigation Services Organisation
CAP	Corrective Action Plan
CASSOA	East African Community Civil Aviation Safety and Security Oversight Agency
CAST	Commercial Aviation Safety Team
CEMAC	Central African Economic and Monetary Community
CEO	Chief Executive Officer
CFIT	Controlled Flight Into Terrain
COO	Chief Operating Officer
COSCAP	Cooperative Development of Operational Safety and Continuing Airworthiness Programme



CSA	Comprehensive Systems Approach
DOT	Department of Transportation
DSA	Daily subsistence allowance
EAC	East African Community
EASA	European Aviation Safety Agency
EC	European Commission
ECCAIRS	European Co-ordination Centre for Accident and Incident Reporting Systems
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EI	Effective Implementation
EIB	European Investment Bank
ESAF	Eastern and Southern African Office, Nairobi
EU	European Union
FAA	United States Federal Aviation Administration
FDM	Flight Data Monitoring System
FMS	flight management system
GADM	IATA Global Aviation Data Management
GASP	Global Aviation Safety Plan
GAT	Global Aviation Training
GNSS	Global Navigation Satellite System
GSI	Government Safety Inspectors
IATA	International Air Transport Association
ICF	International Cooperation Forum
ICVM	ICAO Coordinated Validation Mission
IFATCA	International Federation of Air Traffic Controllers' Associations
ILS	Instrument Landing System
IOSA	IATA Operational Safety Audit
IOSA-AFI	IOSA Implementation Training Initiative for African Airlines
IPSOA	IATA Implementation Program for Safe Operations in Africa
ISARPs	IOSA Standards and Recommended Practices
ISSA	IATA Standard Safety Assessment
LEI	Lack of Effective Implementation
LOC-I	Loss of Control In-flight
MARB	Monitoring and Assistance Review Board
MOU	Memorandum of Understanding
NTSB	National Transportation Safety Board
OJT	On-the-job Training
OLF	Online Framework
PASO	Pacific Aviation Safety Office
PBN	Performance-based Navigation
RASG-AFI	Regional Aviation Safety Group in the AFI Region
RE	Runway Excursions
ROST	Regional Office Safety Team
RSOOs	Regional Safety Oversight Organizations
SADC	Southern African Development Community
SAFA	Safety Assessment of Foreign Aircraft



SIASA	Support to the Improvement of Aviation Safety in Africa
SARPs	Standards and Recommended Practices
SCAN	Safety Collaborative Assistance Network
SMS	Safety Management System
SSCs	Significant Safety Concerns
SSFA	Safe Skies for Africa Program
SSP	State Safety Programme
TC	Technical Co-operation Programme
TCB	Technical Co-operation Bureau
TSA	Transportation Security Administration
UEMOA	West African Economic and Monetary Union
USOAP CMA	Universal Safety Oversight Audit Programme Continuous Monitoring Approach
USOAP	Universal Safety Oversight Audit Programme
WACAF	Western and Central African Office, Dakar

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**AFRICA-INDIAN OCEAN (AFI) AVIATION SAFETY SYMPOSIUM****Dakar, Senegal, 27 to 28 May 2014****HISTORY OF THE MEETING****1. DURATION**

1.1 The *Africa-Indian Ocean (AFI) Aviation Safety Symposium* was held at the King Fahd Palace Hotel in Dakar, Senegal from 27 to 28 May 2014.

2. ATTENDANCE

2.1 The Symposium was attended by 281 participants of ICAO Member States and international organizations, as presented in the Attachment.

3. MASTER OF CEREMONIES, MODERATORS AND RAPPORTEURS

3.1 Mr. Mohamed Elamiri, Deputy Director, Safety Management and Monitoring, Air Navigation Bureau (ANB), International Civil Aviation Organization (ICAO) acted as Master of Ceremonies of the Symposium.

3.2 The Sessions were moderated and summarized by the following officers, supported by a Rapporteur, as shown in the list below.

Session	Moderator	Rapporteur
Session 1	Mr. Mohamed Elamiri, Deputy Director, Safety Management and Monitoring, ANB, ICAO	Ms. Jimena Blumenkron, Aviation Safety Officer, ANB, ICAO
Session 2	Mr. Farid Zizi, President, Air Navigation Commission	Mr. Michiel Vreedenburgh, Chief, Implementation Support and Development – Safety (ISD-SAF) Section, ANB, ICAO
Session 3	Ms. Iyabo Sosina, Secretary General, AFCAC	Mr. Soo-Ho Jun, Technical Officer, ISD-SAF Section, ANB, ICAO
Session 4	Mr. Mam Sait Jallow, Regional Director, Western and Central African Office, Dakar, ICAO	Mr. Ousman Manjang, Regional Officer Flight Safety, Western and Central African Office, Dakar, ICAO
Session 5	Mr. Meshesha Belayneh, Regional Director, Eastern and Southern African Office, Nairobi, ICAO	Mr. Prosper Zo'o-Minto'o, Deputy Regional Director, Eastern and Southern African Office, Nairobi, ICAO



Session 6	Captain Kevin Hiatt, Senior Vice President Safety & Flight Operations, IATA	Mr. Gaoussou Konate, Deputy Regional Director, Western and Central African Office, Dakar, ICAO
Session 7	Mr. Mohamed Elamiri, Deputy Director, Safety Management and Monitoring, ANB, ICAO	Ms. Jimena Blumenkron, Aviation Safety Officer, ANB, ICAO

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4. **WELCOMING NOTE - SECRETARY GENERAL, ICAO**

4.1 Today we will be jointly reviewing the status of aviation safety and air navigation performance in the AFI Region. In doing so, we will focus on the progress made in attaining the Abuja safety targets endorsed by the African Union (AU) Heads of State in January 2013, and of course the challenges and opportunities as we continue to pursue our goals.

4.2 You may recall that during the Ministerial briefing on the status of aviation safety in Africa, organized prior to our 38th Assembly last autumn, information was provided on the assistance and capacity building activities of the ICAO AFI Plan, and the resulting progress achieved by States in implementing effective safety oversight.

4.3 It was also indicated that the AFI Plan would be expanded to include Air Navigation Services, Aerodromes and Aircraft Accident Investigation areas. It is ICAO's view that this expansion in the scope of the AFI Plan will be a critical stepping stone in meeting your Abuja safety targets.

4.4 ICAO has been very encouraged by the level of commitment shown up to this point by African States. However, continued political will is still required in order to succeed. Your commitment is primarily demonstrated through the establishment and strengthening of autonomous Civil Aviation Authorities with independent regulatory oversight and sustainable sources of funding.

4.5 Efforts have also been focused on the establishment of sustainable Regional Safety Oversight Organizations (RSOOs) that can support an effective monitoring of safety in the different sub-regions. This topic has generated interest and enthusiasm on the part of African States, but also has posed challenges of sustainability and coordination that need to be addressed. This Symposium is expected to generate important outcomes to bring a number of such entities that currently exist in the region to work closer together. Ultimately, it is up to African States to make these RSOOs' work.

4.6 The international community is thankful for the support provided by all aviation safety partners in contributing to the realization of the Abuja priorities and targets. I encourage African States and partners to continue securing sufficient funding sources and practical support to collaboratively achieve these common objectives.

4.7 As we will recognize throughout this event, there are certain positive safety performance results which ICAO has seen in Africa over the last several years, largely as a result of our intensified cooperation.

4.8 For instance, between 2010 and 2013, the accident rate in Africa has fallen by 45 per cent, from 16.8 accidents per million departures to 9.3. Notably, the number of fatal accidents over this same period dropped from 3 to 1 per year.

4.9 Our common challenge remains how to transform this development into a sustained positive trend through collaborative partnership among the relevant stakeholders. This is partly the objective of this Symposium and I am confident that it can be attained.



4.10 ICAO's long-term planning for aviation safety in Africa also brings to mind the shortage of skilled personnel that will be faced by both operators and State regulators as air transport networks continue to expand through 2030.

4.11 Meeting the portion of these needs which are projected for Africa will require a tripling of the current continent-wide training capacity now in place.

4.12 This is surely a challenge for Africa but it is also an opportunity, and I would encourage you all to become better acquainted with ICAO's role in the field of training and all that it will have to offer to your region.

4.13 You are also encouraged to support the newly established Association of African Aviation Training Organizations (AATO) which will serve as the framework for closer cooperation and harmonization of training requirements as well as standardization and quality assurance.

4.14 With regard to the lack of safety inspectors in the Region, the cooperation between ICAO and the African Civil Aviation Commission (AFCAC) has facilitated the establishment of a pool of qualified and experienced African inspectors to assist States in addressing safety oversight deficiencies.

4.15 As you know, the significant projected growth of air traffic in Africa will further require huge investments for ground infrastructure and air navigation systems. I would encourage you to consider the long term economic development and tax-based returns which will derive from these investments, primarily by maximizing your respective tourism, foreign market access and other business sector potentials.

4.16 As you may recall, the 38th Session of our Assembly approved an updated Global Air Navigation Plan (GANP) and Global Aviation Safety Plan (GASP).

4.17 In particular, the GANP will assist you on air navigation planning, ensuring that you invest wisely with respect to the technologies and capabilities that the African aviation transportation system needs.

4.18 I applaud your collaborative decision that led to the establishment of the African Flight Procedure Programme (AFPP), right here in Dakar, to support across Africa a smart implementation of Performance-based Navigation (PBN), our number one air navigation priority. The objective of this important initiative is to improve safety and efficiency of air navigation while reducing the impact of flight operations on the environment.

4.19 Let me put on record my sincere thanks to those stakeholders who did not spare any efforts to ensure the establishment of the African FPP Programme. I look forward to welcoming those parties that have already expressed their commitment to this initiative, to the signing ceremony for the official launching of the Programme's activities. I would like to call on more States and partners for the adherence and support for the programme.



4.20 Furthermore, it is remarkable that the Abuja Declaration and its safety targets served as an example for the establishment of the priorities and targets in other regions of the World. All these priorities and targets are based on the current Global Aviation Safety Plan.

4.21 Now is the time for the Regional Aviation Safety Groups (RASGs) to facilitate and monitor the attainment of global and regional targets, and to formulate updates to the Global Aviation Safety Plan as necessary. I invite the RASG-AFI to propose these updates to the Second High-level Safety Conference to be held in Montreal, Canada in February 2015.

4.22 I am also pleased to share with you that earlier this month, ICAO launched the new Regional Performance Dashboards. For Africa, these dashboards provide real-time monitoring on the achievements of the Abuja targets as well as key efficiency performance indicators.

4.23 ICAO's 2014 Safety Report, and inaugural annual Air Navigation Report, have now both been published and are available on our website. Regional reports developed by the Regional Aviation Safety Groups also provide a holistic picture of the situation in each Region.

4.24 It is ICAO's objective that these annual reports and online tools greatly improve transparency and accountability, both on a regional and a global basis. The analysis derived from these reporting tools will also contribute to update the Global Aviation Safety Plan.

4.25 Ladies and gentlemen, as of 7 December this year, ICAO will have been serving the global aviation community for some 70 years.

4.26 Much of this history has taken place on other continents of the world, but Africa now stands poised to play an essential role in the future growth of our global system, and our Organization has been very encouraged by its recent progress and commitment.

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5. WELCOMING NOTE - MINISTRE DU TOURISME ET DES TRANSPORTS AÉRIENS, SENEGAL

5.1 On behalf of His Excellency the President of the Republic of Senegal Mr. Macky Sall, on behalf of all of the Senegalese people and on my own behalf, I welcome you to Senegal, the country of *teranga* [hospitality], on the occasion of the Symposium on Civil Aviation Safety and the Meeting on Civil Aviation Security in Africa and the Indian Ocean taking place in Dakar from 27 to 29 May 2014.

5.2 It is a great honour and a true pleasure for me to express my deep gratitude to the Secretary General of ICAO and thank all the participants and organizations that helped bring about this important event which will no doubt contribute to the strengthening of civil aviation safety and security in Africa.

5.3 I would like to praise ICAO for its dedicated promotion throughout the world, and in Africa in particular, of an efficient civil aviation system that achieves the major objectives of safety, security, environmental protection and the sustainable development of air transport.

5.4 These efforts have resulted in the development of safety, security and environmental protection programs that meet the needs of Member States and are solidly founded on coordination, collaboration and cooperation.

5.5 To cite only a few examples, ICAO has introduced the Continuous Monitoring Approach (CMA), allowing each State to ensure aviation safety oversight on its territory.

5.6 In the field of security, the Universal Security Audit Program (USAP) initiated in 2002 remains a key element of ICAO's global strategy for civil aviation security. The program has developed along the same lines as the Universal Safety Oversight Program, and will become the USAP-CMA in 2015.

5.7 ICAO's work in the environmental field has helped States prepare action plans to identify the best measures for cutting CO₂ emissions from international civil aviation.

5.8 And yet challenges remain, in particular the need to resolve significant safety concerns (SSCs), strengthen civil aviation safety oversight, pool resources for better accident investigation and solve emerging safety issues in the Africa/Indian Ocean region.

5.9 Ladies and gentlemen, this symposium is an opportunity for you to discuss the civil aviation safety situation and air navigation performance in the AFI region, progress in achieving the air safety targets adopted by the Ministerial Conference on Aviation Safety in Africa held in Abuja, Nigeria in July 2012 which were subsequently endorsed by the Summit of Heads of State of the African Union in January 2013, and to consider future challenges and options.

5.10 This symposium will also be an opportunity for a frank assessment and the effective coordination of assistance needs as well as a chance to rally support for specific actions to meet the Abuja safety targets and improve aviation safety and air navigation performance in the AFI region.

5.11 At the meeting on Civil Aviation Security, you will be able to share information about recent major events of particular concern to Africa, taking into account the outcomes of both the High-



level Security Conference (HLCAS) of September 2012 and the 38th Assembly of ICAO regarding implementation of Annex 17 – Security and Annex 9 – Facilitation.

5.12 Ladies and gentlemen, allow me to point out that, due to its geographical position, Senegal has hosted aeronautical activities since the turn of the 20th century, with its first flights in the years 1910 – 1920 marking an important milestone in the history of air mail. For a long time, Dakar was also the only African stop for the legendary supersonic Concorde. Still today, Senegal strives to play a significant role in international civil aviation. Indeed, Senegal is home to:

- a) the ICAO Regional Office for the West and Central Africa region (WACAF);
- b) the headquarters of the African Civil Aviation Commission (AFCAC);
- c) the IATA West Africa Office;
- d) an FAA office; and
- e) the headquarters of the Agency for Air Navigation Safety in Africa and Madagascar (ASECNA), of whose constitutive convention Senegal is the depositary.

5.13 In order to boost the Senegalese civil aviation system to the ranks of countries in compliance with international standards, Senegal is cooperating at the international level to ensure effective implementation of Standards and Recommended Practices (SARPs) and align to ICAO's strategic approach toward global safety and security oversight.

5.14 At the same time, Senegal is engaged in cooperative actions at the regional and sub-regional levels, in particular with the adoption of the Economic Community of West African States (ECOWAS) and West African Economic and Monetary Union (UEMOA) civil aviation regulations.

5.15 The Government of Senegal knows that air transport is a powerful vehicle for development, and is thus determined to introduce a policy to open up the skies and better serve domestic and international routes. This endeavour to develop air transport cannot succeed unless we strengthen our safety and security oversight capacity.

5.16 In this context and with our aeronautical vocation, our country is preparing for an ICAO safety audit, following our last audit in 2006.

5.17 Senegal has taken the following significant steps to enhance civil aviation safety and security:

- a) tightening of national regulations. For this purpose, the National Civil Aviation and Meteorological Agency (ANACIM) oversees the update of the national regulatory framework to reflect changes to ICAO SARPs. A new civil aviation code covering all the recommendations emanating from ICAO and FAA audits has recently been adopted by the Government and is to be validated by Parliament very soon. In addition, updated and internationally compliant aviation regulations have just been validated by our Civil Aviation Authority;
- b) skills enhancement in the training of national inspectors in various fields, namely aerodromes, air navigation, airworthiness and civil aviation security operations;



- c) commitment by the State to certify all of the airports of Senegal before the end of 2015, pursuant to the Abuja Declaration;
- d) completion by November 2014 of Blaise Diagne International Airport which, with an annual capacity of 3 million passengers and modern equipment and infrastructure in a secure environment, will serve as a sub-regional hub;
- e) the program to upgrade secondary aerodromes serving international traffic, initiated by His Excellency the President of the Republic of Senegal, Mr. Macky Sall, will open up access to isolated areas and attract tourism to the hinterland;
- f) improved level of civil aviation security in Senegal. In light of the new and emerging threats due mainly to the international and regional geopolitical context, Senegal has introduced a reliable security oversight policy. To meet the oversight targets already approved in satisfactory audits by ICAO, UEMOA and the U.S. TSA, our country is implementing a risk assessment and threat management system that will serve to effectively combat acts of unlawful interference; and
- g) construction of the new headquarters of ICAO and AFCAC at Leopold Sedar Senghor International Airport.

5.18 Ladies and gentlemen, I am sure that this symposium will be the perfect place for the AFI region and the whole world to identify and evaluate all aspects of the development of air transport and the strengthening of international civil aviation safety and security.

5.19 I would like to highlight the terrorist threat that has not gone away, and invite States to intensify their fight against this scourge. There is an urgent need to harmonize our resources to this end at the sub-regional, continental and global levels.

5.20 Ladies and gentlemen, I reaffirm that the State of Senegal fully subscribes to all proposals for global cooperation to promote international civil aviation.

5.21 We will give full consideration to the conclusions of this symposium on safety and of the meeting on security.

5.22 Wishing you every success in your work, I declare open the Symposium on Safety and the Meeting on Civil Aviation Security in the AFI Region.

5.23 I thank you for your kind attention and declare open the AFI Aviation Safety Symposium.

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6. EXECUTIVE SUMMARY

6.1 The AFI Aviation Safety Symposium presented the status of aviation safety and air navigation performance in the AFI Region, the progress made in attaining the regional aviation safety targets adopted during the Ministerial Conference on Aviation Safety in Africa held in Abuja, Nigeria in July 2012 and endorsed by the Assembly of Heads of State of the African Union in January 2013, as well as the regional performance objectives for air navigation systems adopted by the Special AFI RAN Meeting (Durban, South Africa, November 2008) and the AFI Planning and Regional Implementation Group (APIRG).

6.2 Aviation safety partners shared their efforts in supporting the improvement of aviation safety and air navigation performance in the AFI Region. The sharing of experiences facilitated valuable panel sessions and opportunities for networking, collaboration and coordination, among Directors General of Civil Aviation, Directors of Safety and Air Navigation Services, representatives of international and regional organizations, aviation safety partners, leading industry stakeholders and financial institutions.

6.3 This forum facilitated a candid assessment, an effective coordination of assistance needs and the gathering of support for specific actions where relevant stakeholders will work collaboratively towards the attainment of the regional safety targets as well as the improvement of safety and air navigation performance in the AFI Region.

6.4 This event enabled Africa to maintain the momentum experienced for the improvement of aviation safety and air navigation performance in the AFI Region as well as to expedite the implementation of the Abuja safety targets. The efforts made by the international community were recognized while African authorities committed to pursue implementation of actions aimed to improve aviation safety and air navigation performance in their States that will result in the achievement of the regional safety targets. Aviation safety partners were also motivated to continue providing assistance to achieve our common objectives under ICAO's leadership and coordination.

6.5 This Symposium yielded a Collaborative Implementation Programme, which was presented to the 13th Steering Committee Meeting of the Comprehensive Regional Implementation Plan for Aviation Safety in Africa (AFI Plan), containing specific initiatives to be implemented by relevant stakeholders in order to achieve the regional safety targets as well as improve aviation safety and air navigation performance in the AFI Region.

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**ATTACHMENT
ATTENDANCE LIST**

	State/Organization	Title		First name	Last name
1	Algérie, Établissement National de la Navigation Aérienne	Chef du Centre de Contrôle Régional	Mr.	Abdelouahab	Djatouf
2	Algérie, Ministère des Transports/Direction de l'Aviation Civile et de la Météorologie	Chef de Bureau Équipements et Certification des Aéroports	Mrs.	Nedjma	Rachedi
3	Belgium Civil Aviation Authority	Director General Belgium CAA	Mr.	Durinckx	Frank
4	Bénin, Agence Nationale de l'Aviation Civile	Directeur Général	Mr.	Aristide	de Souza
5	Bénin, Agence Nationale de l'Aviation Civile	Chef du Service de la Navigation Aérienne	Mr.	Karl	Legba
6	Bénin, Agence Nationale de l'Aviation Civile	Directeur de l'Exploitation Aérienne	Mr.	Akimou	Soumaila
7	Botswana, Civil Aviation Authority	Acting CEO	Mr.	Olefile	Moakofi
8	Burkina Faso, Agence Nationale de l'Aviation Civile (ANAC)	Director General, ANAC	Mr.	Abel	Sawadogo
9	Burkina Faso, ICAO	Ambassador, Permanent Representative of Burkina Faso on the Council of ICAO	Mr.	Moumouni	Dieguimde
10	Aeroportos e Segurança Aérea Cabo Verde (ASA)	Airport Director	Mr.	Daniel Rogerio	Monteiro Lima
11	Aeroportos e Segurança Aérea Cabo Verde (ASA)	Engineering and Infrastructure Director	Mr.	Evora Santos	Nuno Elton
12	Cabo Verde Civil Aviation Authority	Chairman of CAA	Mr.	João	Monteiro
13	Cabo Verde Civil Aviation Authority	Air Navigation and Aerodrome Director	Mr.	Alberto	Silva
14	Cameroon Civil Aviation Authority (CCAA)	Inspecteur N°1 chargé du Transport Aérien et de la Sécurité	Mr.	Djon	Jean



15	Cameroon Civil Aviation Authority (CCAA)	Directeur Général Adjoint	Mr.	Allabira	Mamadou
16	Cameroon Civil Aviation Authority (CCAA)	Directeur Général	Mr.	Pierre	Tankam
17	Cameroun, Ministère des Relations Extérieures du Cameroun	Diplomate	Mr.	Thomas	Ndongo Onana Biyega
18	Agence de Supervision de la Sécurité Aérienne en Afrique Centrale	Directeur Général	Mr.	Paul Alain	Mendouga
19	Autorité Nationale de l'Aviation Civile de la République Centrafricaine	Responsable de la Sécurité Aérienne et Normes des Vols	Mr.	Tellet	Christian Lambert
20	China, ICAO	Representative of China on the Council of ICAO	Mr.	Ma	Tao
21	Comores	Directeur Général	Mr.	Ahmed	Bourhane
22	Congo, Agence Nationale de l'Aviation Civile (ANAC)	Coordonnateur National de la Surveillance Continue	Mr.	Henri Okondza	Azouangoli
23	Congo, Agence Nationale de l'Aviation Civile (ANAC)	Directeur Général	Mr.	Serge Florent	Dzota
24	Congo, Agence Nationale de l'Aviation Civile (ANAC)	Directeur du Transport Aérien	Mr.	Roméo Boris	Makaya Batchi
25	Autorité Nationale de l'Aviation Civile (ANAC)	Sous-Directeur SDCSNASA	Mr.	Ayebi Henri Jacques	Assi
26	Autorité Nationale de l'Aviation Civile (ANAC)	Directeur Contrôle de la Sécurité et de la Certification	Mr.	Nekalo Joseph	Koffi Bi
27	Autorité Nationale de l'Aviation Civile (ANAC)	Directeur Contrôle de la Sûreté et de la Facilitation	Mr.	Daniel Hermann Harold	Milan
28	Autorité Nationale de l'Aviation Civile (ANAC)	Directeur Général	Mr.	Sinaly	Silue
30	Djibouti Civil Aviation Authority	Chef de Service Administratif par intérim	Mr.	Ainanche	Said Chireh
31	Aéroport International de Djibouti	Chef de Division/Adjoint du Trafic Aérien	Mr.	Mohamed	Elmi Hersi



32	République de Djibouti	Secrétaire Général du Ministère des Transports et de l'Équipement	Mr.	Said	Nouh Hassan
33	Autorité de l'Aviation Civile de la République Démocratique du Congo	Coordonnateur National Adjoint CMA	Mr.	Robbie	Kalala Mpingisha
34	Autorité de l'Aviation Civile de la République Démocratique du Congo	Directeur de Transport Aérien	Mr.	François	Kayembe Katubalondji
35	Autorité de l'Aviation Civile de la République Démocratique du Congo	Assistante du Directeur Général	Mrs.	Céline	Masengu Kabwika
36	Autorité de l'Aviation Civile de la République Démocratique du Congo	Directeur Général	Mr.	Richard	Nyanguile Kasanza
37	Egypt, ICAO	Representative of Egypt on the Council of ICAO	Mr.	Abdalla	Mahmoud
38	Egyptian Civil Aviation Authority	Director General Senior Air Transport Inspector	Mr.	Fathy	Ghonaimey
39	Egyptian Civil Aviation Authority	General Manager of International Civil Aviation and Inspection	Mr.	Medhat	Ismael Disouky
40	EUROCONTROL	Director Pan-European Single Sky	Mr.	Lucas	Tytgat
41	European Aviation Safety Agency (EASA)	Regional Project Manager	Mr.	Yves	Koning
42	European Commission	Policy Officer	Mr.	Francesco	Faiulo
43	Guinée équatoriale	Chief of Safety Operations	Mr.	Sergio	Calvo Gonzalez
44	Guinée équatoriale	Directeur Général	Mr.	Leandro	Miko Angue
45	Guinée équatoriale	Chef Département Juridique	Mr.	Alejandro	Ona Owono
46	École Nationale de l'Aviation Civile (ENAC)	Programme Manager for Africa, International and Development	Ms	Isabelle	Rossi
47	France	Directeur des Operations DSNA Services	Mr.	Stéphane	Durand
48	France, CRASAC Dakar	Expert Technique International Sûreté Aérienne	Mr.	Bertrand	Desquiens
49	France, DGAC	Department of International Cooperation - Director Africa	Ms	Sophie	Germain



50	France, Direction des Services de la Navigation Aérienne	Chef de Subdivision Exploitation SNA-OI	Mr.	Siva	Vadivelou
51	France, EGIS	Area Manager, Maghreb, Afrique de l'Ouest et Afrique Centrale	Mr.	Antoine	Bonnaud
52	Gabon, Airport Services Company (ASC)	Directeur d'Exploitation/Responsable Sûreté et Facilitation	Mr.	Henri	Ditengou Moussavou
53	Gabon, Haute Autorité Sûreté et Facilitation	Conseiller du Secrétaire Permanent	Mr.	Alain	Bouma
54	Gabon, Haute Autorité Sûreté et Facilitation	Secrétaire Permanent	Mr.	Célestin	Embinga Louri
55	Gabon, Haute Autorité Sûreté et Facilitation	Chef Service Sûreté et Facilitation	Mr.	Alain	Olilini
56	National Civil Aviation Agency of Gabon	Directeur Juridique	Mr.	Michel Xavier	Biang
57	National Civil Aviation Agency of Gabon	Directeur de l'Exploitation Aérienne	Mr.	Jean Paul	Matsoungou
58	National Civil Aviation Agency of Gabon	Managing Director	Mr.	Dominique	Oyinamono
59	Police de l'Air et des Frontières, Gabon	Directeur	Mr.	Lilian	Leyigui
60	Gambia Civil Aviation Authority	Safety Manager	Mr.	Karamo	Kanteh
61	Gambia Civil Aviation Authority	Flight Safety Manager	Mr.	Kebba Lamin	Jammeh
62	Ghana Civil Aviation Authority	Director, Air Traffic Management	Mr.	Albert Aidoo	Taylor
63	Ghana Civil Aviation Authority	Director Legal, International Relations and Corporate Communications	Ms.	Joyce	Thompson
64	Ghana, ICAO	Representative of Ghana to ICAO	Mr.	Simon	Allotey
65	Guinée, Direction Nationale de l'Aviation Civile	Directeur National Adjoint	Mr.	Mansa Kolon	Keita
66	Guinée, Direction Nationale de l'Aviation Civile (DNAC)	Chef Section Aéronefs et Navigabilité	Mr.	Ousmane	Barry



67	Guinée, Direction Nationale de l'Aviation Civile (DNAC)	Chef de Division Navigation Aérienne et Infrastructure (DNI)	Mr.	Sékou	Diakite
68	Guinea Bissau Civil Aviation Authority	Safety Director	Mr.	João Filomeno Dos	Santos Moreira
69	Guinea Equatorial, Ministerio Aviacion Civil		Mr.	Santiago Oyono	Afubu Eyenba
70	ICAO	AVSEC Regional Coordinator - WACAF	Mr.	Eric	Abraham
71	ICAO	Field Operations Officer	Mr.	Christian	Bechtold
72	ICAO	Aviation Safety Officer	Ms	Jimena	Blumenkron
73	ICAO	D/ATB	Mr.	Boubacar	Djibo
74	ICAO	Deputy Director, Safety Management & Monitoring	Mr.	Mohamed	Elamiri
75	ICAO	D/TCB	Mr.	Ivan	Galan
76	ICAO	Global Aviation Training Manager	Mr.	Mostafa	Hoummady
77	ICAO	Technical Officer	Mr.	Soo-ho	Jun
78	ICAO	Chief, Implementation, Air Navigation Bureau	Mr.	Michiel	Vreedenburgh
79	ICAO ANC	President of ICAO ANC	Mr.	Farid	Zizi
80	ICAO ESAF	Regional Director, Eastern and Southern African Office	Mr.	Meshesha	Belayneh
81	ICAO ESAF	Deputy Regional Director, Eastern and Southern African Office	Mr.	Prosper	Zo'o Minto'o
82	ICAO TCB	Expert Navigabilité	Mr.	Serge Denis	Divounguy
83	ICAO TCB	Expert Navigabilité	Mr.	René	Tavarez
84	ICAO WACAF	RO AIM	Mr.	George A. Y.	Baldeh
85	ICAO WACAF	RO AVSEC	Mr.	Alassane	Dolo
86	ICAO WACAF	RO TC/FOS	Mr.	Romain	Ekoto
87	ICAO WACAF	RO TC/AT	Mr.	Evalou	Gnang
88	ICAO WACAF	Regional Director	Mr.	Mam Sait	Jallow



89	ICAO WACAF	Deputy Regional Director	Mr.	Gaoussou	Konaté
90	ICAO WACAF	African Flight Procedure Programme Manager	Mr.	Frederic	Legrand
91	ICAO WACAF	RO AIR	Mr.	Ousman Kemo	Manjang
92	ICAO WACAF	RO AGA	Mr.	Nikea Meheza	Manzi
93	ICAO WACAF	RO MET	Mr.	Akoa Benoit	Okossi
94	ICAO WACAF	RO AIR2	Mr.	Ali	Ousmane
95	ICAO WACAF	RO CNS	Mr.	Francois Xavier	Salambanga
96	Afric-Aviation, Gabon	Responsable Sûreté	Mr.	Hervé	Biam
97	Airbus Prosby	PBN Projet Manager	Mr.	Lucas	Florent
98	Airbus Prosby	Regional Safety Director	Mr.	Maury	Seck
99	Asky Senegal	Directeur	Mr.	Dominique	Tending
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101	ATNS, South Africa	CEO	Mr.	Thabani	Mthiyane
102	ATNS, South Africa	Senior Manager Stakeholder & Intl. Relations	Mr.	Joseph	Musandiwa
103	ATNS, South Africa	Chief Financial Officer	Mr.	Moshabe William	Ndlovu
104	ATNS, South Africa	Branch Officer	Mr.	Tsepo	Ntsukunyane
105	AviAssist Foundation - Flight Safety Foundation	Director	Mr.	Tom	Kok
106	Aviation Infrastructure Management Solutions (AIMS)	Director General	Mr.	Adrian	Cioranu
107	Boeing	Director Aviation Safety Africa and Middle East	Mr.	Chamsou	Andjorin
108	C2FC Centre Français Formation et Conseils	PDG	Mr.	Alain-Marie	Maillat
109	ECTAR	CEO	Mrs.	Delia	Bergonzi
110	ECTAR	Project Manager	Mr.	Jean	Bergonzi
111	ECTAR	President	Mr.	Cheick Tidiane	Camara



112	Embraer Aviation Europe	Air Safety Manager	Mr.	Luis Savio	Dos santos
113	EMPIC GmbH	Business Development	Mr.	Nigel	Coules
114	European Satellite Services Provider	CEO	Mr.	Thierry	Racaud
115	RwandAir	Deputy CEO and COO	Mr.	Jean Paul	Nyirubutama
116	SECURIPOINT	Directeur Administratif et Financier	Mr.	Jacques	Awanou
117	SECURIPOINT	Coordonnateur IT Régional	Mr.	Abdoulaye	Diop
118	SECURIPOINT	Directeur Technique	Mr.	Charbel	Haddad
119	SECURIPOINT	Assistante de Direction	Ms.	Patience	Kalu
120	Sen Aviation	Présentatrice d'Emission Aéronautique	Mrs.	Assiatou	Mirre
121	Sky Gabon S.A	Cadre Commercial	Mr.	Serge Rodrigue	Agaya
122	Sky Gabon S.A	Directeur Général	Mr.	Jean	Yembi Yembi
123	Synergies Afrique	Directrice Commerciale	Mme	Issa	Dafe
124	United States	Senior Advisor, The Wicks Group	Ms	Cornelia	Wilson-Hunter
125	World Bank Group	Senior Transport Specialist	Mr.	Ibou	Diouf
126	Kenya, Civil Aviation Authority	National Continuous Monitoring Coordinator	Mr.	Lawrence	Amukono
127	Kenya, Civil Aviation Authority	Director, Aviation Safety And Security Regulation	Mr.	Joe	Mutungi
128	Republic of Korea, ICAO	Ambassador, Representative of the Republic of Korea on the Council of ICAO	Mr.	Donghwan	Choi
129	Madagascar, Aviation Civile	Directeur Général	Mr.	James	Andrianalisoa
130	Madagascar, Aviation Civile	Inspecteur Général du Système Technique	Mr.	Bako Alain	Ramanananahary
131	Malawi, Department of Civil Aviation	Director	Mr.	Alfred	Mtilatila
132	Mali, Agence Nationale de l'Aviation Civile (ANAC) du Mali	Directeur de la Sécurité Aérienne	Mr.	Oumar Mamadou	Ba
133	Mali, Agence Nationale de l'Aviation Civile (ANAC) du Mali	Directeur Général	Mr.	Issa Saley	Maiga



134	Mauritanie, Agence Nationale de l'Aviation Civile de Mauritanie	Directeur Général	Mr.	Aboubekrine Seddigh	Mohamed Elhacen Monane
135	Mauritanie, Agence Nationale de l'Aviation Civile de Mauritanie	-	Mr.	Sidi Mohamed	Sidi
136	Morocco	Alternate Representative of Morocco to ICAO	Mr.	Aziz	Boulmane
137	Morocco	Chief, Aviation Safety Division	Mr.	Tarik	Talibi
138	Morocco	-	Mr.	Youssef	Zine
139	Mozambique, ICAO	Representative of Mozambique to ICAO	Mr.	Antonio	Pinto
140	Niger, ANAC	Director General	Mr.	Seydou Yaye	Amadou
141	Niger, ANAC	Chef du Département Navigation Aérienne et Infrastructures aéroportuaires	Mr.	Issa Ado	Issoufou
142	Niger, ANAC	Président du Conseil d'Administration	Mr.	Saidou Ibrahima	Maiga
143	Niger, ANAC	Chef du Département Exploitation Technique des Aéronefs	Mr.	Bala	Sani
144	Niger, ANAC	Chef du Département Sûreté et Facilitation	Mr.	Moussa	Souleymane
145	Nigerian Airspace Management Agency (NAMA)	Managing Director	Mr.	Ibrahim	Abdulsalam
146	Nigerian Airspace Management Agency (NAMA)	Safety Manager	Mr.	Adeshola	Adeleke
147	Nigerian Airspace Management Agency (NAMA)	Safety Manager	Mr.	Sunday Kayode	Jegede
148	Nigerian Airspace Management Agency (NAMA)	Director of Operation	Mr.	John Chuks	Onyegiri
149	Nigerian Airspace Management Agency (NAMA)	General Manager, SMS/QA	Mr.	Felix Ifeanyi	Uzoma-Fyneboy
150	African Airlines Association (AFRAA)	Secretary General	Dr.	Elijah	Chingosho
151	African Aviation Training Organizations (AATO)	Vice-President	Mrs.	Dy	Moonsammy



152	African Aviation Training Organizations (AATO)	President AATO Council	Mr.	Sadamba	Tchagbele
153	African Civil Aviation Commission (AFCAC)	Directeur du Transport aérien	Mr.	Ciré Demba	Ba
154	African Civil Aviation Commission (AFCAC)	Air Navigation and Aerodrome Expert	Mr.	Papa Atoumane	Fall
155	African Civil Aviation Commission (AFCAC)	Security expert	Mrs.	Yvonne	Mokgako
156	African Civil Aviation Commission (AFCAC)	Air Transport Expert	Mrs.	Mosa	Ntebele
157	African Civil Aviation Commission (AFCAC)	Technical Advisor (Safety Expert)	Mr.	Fidelis O.	Onyeyiri
158	African Civil Aviation Commission (AFCAC)	Secretary General	Ms	Iyabo O.	Sosina
159	African Civil Aviation Commission (AFCAC)	Director Safety and Technical Services	Mr.	Mesfin Fikru	Woldeyohannes
160	African Development Bank (AfDB)	Ingénieur des Transports	Mr.	Mohamed El Abbas	Wade
161	African Union Commission (AUC)	Senior Air Transport Policy Officer	Mr.	Adiron	Alberto
162	Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)	Responsable des Affaires Juridiques et Assurances	Mr.	Makan	Fofana
163	Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)	Chef Centre AVSEC/OACI	Mr.	Oumarou	Ganda
164	Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)	ATS Manager	Mr.	Amadou Malal	Gueye
165	Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)	Director General	Mr.	Amadou Ousmane	Guittaye
166	Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)	ANC Member/Chairperson of the AFI Plan Steering Committee	Mr.	Moussa	Halidou
167	Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)	Responsable Communication, Documentation et Archives	Mr.	Harouna	Kindo



168	Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)	Head of Air Navigation Department	Mr.	Sidi	Kone
169	Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)	Technical Advisor to the Director General	Mr.	Julien	Lapie
170	Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)	Directeur Contrôle Sécurité Qualité Et Environnement	Mr.	Alain Paul	Marcellin
171	Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)	Directeur de l'Exploitation Technique	Mrs.	Claire-Josette	Obame-Edou
172	Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)	Chef Département Sécurité / Sûreté / Qualité / Environnement	Mr.	Wodiaba	Samaké
173	Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)	Chef du Cabinet du Directeur Général	Mr.	Managa Bamba	Sankara
174	Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)	Cadre Sécurité	Mrs.	Téné Issabre	Sanogo
175	Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)	Concepteur des Procédures de Vol	Mr.	Théodore	Tchuisseu
176	Agency for Air Navigation Safety in Africa and Madagascar (ASECNA)	Responsable Sécurité	Mr.	Bakary	Tioro
177	ASECNA - Safir Delegation	Certification & Safety Expert	Mr.	Moustapha B.	Malam
178	ASECNA, Senegal Representative	Ingénieur Telecom	Mr.	Saydou	Ba
179	ASECNA, Senegal Representative	Responsable des Opérations à la REP/ASECNA	Mr.	Diaga	Basse
180	ASECNA, Senegal Representative	Représentant de l'ASECNA au Sénégal	Mr.	Abdoulaye	Diouf
181	ASECNA, Senegal Representative	Chargé de Contrôle en route	Mr.	Mamadou	Mbodji
182	ASECNA, Senegal Representative	Chef Unité Energie Balisage	Mr.	Camille	Ribeiro
183	ASECNA, Senegal Representative	Responsable de l'Unité AIM à la REP/ASECNA	Mr.	Ali	Sarr
184	Banjul Accord Group Aviation Safety Oversight Organization (BAGASOO)	Executive Director	Mr.	Emmanuel	Akatue
185	Civil Air Navigation Services Organisation (CANSO)	Director Africa Affairs	Ms	Boni	Dibate



186	Commission de la Communauté Économique et Monétaire de l'Afrique Centrale (CEMAC)	Directeur de l'Aménagement du Territoire, des Infrastructures et des Transports	Mr.	Eddie Justin	Mbanza
187	Cooperative Development of Operational Safety and Continuing Airworthiness Programme - Southern African Development Community (COSCAP-SADC)	Regional Flight Safety Inspector-Operations	Ms	Suzette	Nieuwoudt
188	Cooperative Development of Operational Safety and Continuing Airworthiness Programme - West African Economic and Monetary Union (COSCAP-UEMOA)	Coordonnateur pour le Programme des audits/inspections de sûreté	Mr.	Tcha - Didjorè Deybou	Bah-Traore
189	Cooperative Development of Operational Safety and Continuing Airworthiness Programme - West African Economic and Monetary Union (COSCAP-UEMOA)	Inspecteur	Mr.	K. Jacques	Douka
190	Cooperative Development of Operational Safety and Continuing Airworthiness Programme - West African Economic and Monetary Union (COSCAP-UEMOA)	Team Leader	Mr.	L. Christophe	Kielwaser
191	Cooperative Development of Operational Safety and Continuing Airworthiness Programme - West African Economic and Monetary Union (COSCAP-UEMOA)	Directeur des Transports aériens/ Coordonnateur Régional COSCAP-UEMOA	Mrs.	Irène	Seka
192	COSCAP-UEMOA/DATC	Commissaire	Mr.	Augustin	Tompieu-Zouo



193	East African Co-operation - East African Community Civil Aviation Safety and Security Oversight Agency (EAC-CASSOA)	Executive Director	Mr.	Barry	Kashambo
194	Economic Community of Central African States - Communauté Economique des Etats de l'Afrique Centrale (ECCAS-CEEAC)	Expert en Aéronautique	Mr	Ernest	Ilang'ikwa Bonkanya
195	Economic Community Of West African States (ECOWAS)	Head Air Transport Unit	Mr.	Paul-Antoine M,	Ganemtore
196	Economic Community Of West African States (ECOWAS)	Commissioner	Mr.	Ebrima	Njie
197	International Air Transport Association (IATA)	Regional Director - SFO	Ms	Tanja	Grobotek
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200	International Air Transport Association (IATA)	Africa Head - Airports, Passenger, Cargo and Security	Mr.	Hassim	Pondor
201	International Air Transport Association (IATA)	Area Manager, Central and West Africa	Mr.	Fabrice	Sahiri
202	Roberts FIR	Secretary General	Mr.	Mamady	Kaba
203	Roberts FIR	Chief of ATS	Mr.	Philip Bobson	Trye
204	Rwanda Civil Aviation Authority	Safety Manager	Mr.	Andrew	Mutabaruka
205	Sao Tome and Principe	Conseiller du Ministre pour l'aviation et représentant du Ministre aux cérémonies	Mr.	Isidoro	Alamao
206	Sao Tome and Principe	Président de l'Institut National de l'Aviation Civile	Mr.	Marcos	Conceicao
207	Aéroport de Cap Skirring, Sénégal	Délégué Régional	Mr.	Sidy Bouya	Fall
208	Aéroport de Tambacounda, Sénégal	Délégué Régional	Mr.	Meissa	Fall



209	Aéroport International Blaise Diagne (AIBD), Sénégal	Conseiller	Mr.	Mathiaco	Bessane
210	Agence des Aéroports du Sénégal (ADS)	Directrice de l'Exploitation et des Opérations Aéroportuaires	Mrs.	Awa Gueye	Diagne
211	Agence des Aéroports du Sénégal (ADS)	Chef Pôle Navigation Aérienne	Miss	Seynabou	Dieye
212	Agence des Aéroports du Sénégal (ADS)	Chef de Sureté	Mr.	Serigne Moustapha	Gaye
213	Agence des Aéroports du Sénégal (ADS)	Chef du Département des Operations Aéroportuaires	Mr.	Mamadou	Gningue
214	Agence des Aéroports du Sénégal (ADS)	Coordonnateur Sûreté	Mr.	Ousmane	Gueye
215	Agence des Aéroports du Sénégal (ADS)	Chef du Pôle SMS/SMQ	Mrs.	Mame Yacine	Kebe
216	Agence des Aéroports du Sénégal (ADS)	Chef Département Equipement	Mr.	Ibrahima	Touré
217	Agence des Aéroports du Sénégal (ADS)	Chef Unité SMS	Mr.	Ibrahima	Wane
218	Autorité de Régulation des Télécommunications et des Postes du Sénégal	Chef de Département Gestion des Fréquences	Mr.	Khalilou	Niane
219	Bureau CNS	Chef	Mr.	Souleymane	Fall
220	Haute Autorité de l'Aéroport International Léopold Sédar Senghor (HAALSS)	Chef de Service Sûreté	Mr.	Papa Ismael Masseck	Ndiaye
221	Haute Autorité de l'Aéroport International Léopold Sédar Senghor (HAALSS)	Conseiller en Sûreté et Sécurité du Secrétaire Général	Mr.	Assane	Seck
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223	Sénégal, Agence Nationale de l'Aviation Civile et de la Météorologie (ANACIM)	Président du Conseil de Surveillance	Mr.	Mamadou	Dieng
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225	Sénégal, Agence Nationale de l'Aviation Civile et de la Météorologie (ANACIM)	Secrétaire Général	Mr.	Mamina	Kamara
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227	Sénégal, Agence Nationale de l'Aviation Civile et de la Météorologie (ANACIM)	Directeur General de l'ANACIM	Mr.	Magueye Maramé	Ndao
228	Sénégal, Agence Nationale de l'Aviation Civile et de la Météorologie (ANACIM)	Chef Département Contrôle	Mr.	Ndéné	Ndiaye
229	Sénégal, Agence Nationale de l'Aviation Civile et de la Météorologie (ANACIM)	Head of Security and Facilitation Department	Mr.	Moussa	Ndiaye
230	Sénégal, Agence Nationale de l'aviation Civile et de la Météorologie (ANACIM)	SSP/SMS Manager	Mr.	Mamadou	Niang
231	Sénégal, Agence Nationale de l'Aviation Civile et de la Météorologie (ANACIM)	Chef du Département Contrôle Technique	Mr.	Mamadou	Sy
232	Sénégal, Agence Nationale de l'Aviation Civile et de la Météorologie (ANACIM)	Directeur du Transport Aérien	Mr.	Mansour	Sy



233	Sénégal, Agence Nationale de l'Aviation Civile et de la Météorologie (ANACIM)	Chef du Département Économie du Transport Aérien	Mrs.	Marie	Sy Ndiaye
234	Sénégal, Agence Nationale de l'Aviation Civile et de la Météorologie (ANACIM)	Chef du Département Navigation Aérienne	Mr.	Ndoumbe Niang	Thioune
235	Sierra Leone Civil Aviation Authority	Finance Manager	Mr.	Moses Tiffa	Baio
236	Sierra Leone Civil Aviation Authority	AVSEC Inspector	Mr.	Chernor Ahmed	Bangura
237	Sierra Leone Civil Aviation Authority	Acting Director General	Mr.	Abu Bakarr	Kamara
238	Sierra Leone Civil Aviation Authority	Chairman	Mr.	Victor E.O.	Spaine
239	Singapore, Civil Aviation Authority of Singapore	Head (School of Aviation Safety and Security)	Mr.	Huei Wang	Kang
240	Singapore, Civil Aviation Authority of Singapore	Director (International Relations)	Miss	Eileen	Poh
241	Singapore, Civil Aviation Authority of Singapore	Senior Assistant Director	Miss	Doris	Song
242	Singapore, Civil Aviation Authority of Singapore	Senior Assistant Director	Mr.	Roy	Toh
243	Singapore, Civil Aviation Authority of Singapore	Director General	Mr.	Ong Heng	Yap
244	South Africa	Security Analyst	Mrs.	Hazel	Mbowane
245	South Africa	Security Analyst	Mr.	Armand	van Eeden
246	South Africa, ICAO	Representative of South Africa on the Council of ICAO	Mr.	Levers	Mabaso
247	South African Civil Aviation Authority	General Manager of Air Safety Infrastructure	Mr.	Gabriël H.	Bestbier
248	South African Civil Aviation Authority	General Manager	Mr.	Mpho	Lebogo
249	Sudan Civil Aviation Authority	A/ Director Aviation Safety Department	Mr.	Yahia	Elhoda
250	Sudan Civil Aviation Authority (CAA)	Deputy Director General Sudan CAA	Mr.	Yousif	Ibrahim Ahmed
251	Sudan Civil Aviation Authority	Director	Mr.	Hassan	Salih



252	Swaziland Civil Aviation Authority	Director General	Mr.	Solomon	Dube
253	United Republic of Tanzania, ICAO	Representative of the United Republic of Tanzania on the Council of ICAO	Mr.	Raphael	Bokango
254	United Republic of Tanzania, Civil Aviation Authority, Air Navigation Service	Head of Flight Procedure Design unit	Mr.	Peter Erasto	Chinyama
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256	Togo, ANAC -TOGO	Directeur Général de l'ANAC Togo	Mr.	Latta	Dokisime Gnama
257	Togo, ANAC -TOGO	Inspecteur Principal Navigation Aérienne et Aéroports/Chef Service Navigation Aérienne	Mr.	Pelenguei	Magnourewa
258	Togo, ASAIGE	Responsable en Sûreté et Gestion de Crise	Mr.	Ognatan	Ognodou
259	Togo, SALT	Chef Service Sécurité Sûreté Facilitation	Mr.	Bali	Koutiba
260	Tunisie, Office de l'Aviation Civile et des Aéroports (OACA)	Directeur de la Sécurité de la Navigation Aérienne	Mr.	Mohamed	Rejeb
261	Tunisie, Office de l'Aviation Civile et des Aéroports (OACA)	Chef de la Division de Suivi de la Sécurité de la Navigation Aérienne	Mr.	Mohamed Amin	Walha
262	EUROCONTROL & Turkish DGCA	President of the PC and Deputy Director General	Mr.	Haydar	Yalcin
263	United Arab Emirates, General Civil Aviation Authority	Assistant Director General, Aviation Safety Affairs	Mr.	Ismaeil	Al Blooshi
264	Uganda Civil Aviation Authority	Director of Airports and Aviation Security	Mr.	John	Kagoro
265	Uganda Civil Aviation Authority	Managing Director	Dr.	Rama Wenceslaus	Makuza
266	Uganda Civil Aviation Authority	Director ANS	Mr.	Richard Mujungu	Ruhesi
267	Uganda, ICAO	Representative of Uganda to ICAO	Mr.	Kabbs	Twijuke
268	United Nations	Fuel Technician	Mr.	Benson	Muisyo
269	United Nations Office for West Africa	Conseiller	Mr.	Nicolas	Guinard



270	United Kingdom	Business Manager	Mr.	Liam	Byrne
271	United States, Department of Transportation (DoT)	Director, International Transportation and Trade	Ms	Julie	Abraham
272	United States, Department of Transportation (DoT)	Senior Advisor/Manager Safe Skies for Africa Program	Mrs.	Shelia	Helton-Ingram
273	United States, Department of Transportation (DoT-OST)	Assistant Secretary for Aviation and International Affairs	Ms.	Susan	Kurland
274	United States, Federal Aviation Administration (FAA)	Director, Air Traffic Safety Oversight Service	Mr.	Anthony	Ferrante
275	United States, Federal Aviation Administration (FAA)	Senior International ATC Operations Officer, ATO International Office – Europe, Africa, Middle East Group	Mr.	Kevin	Haggerty
276	United States, Federal Aviation Administration (FAA)	FAA Representative in Africa, FAA Office of International Aviation	Ms.	Moirra	Keane
277	United States, Federal Aviation Administration (FAA)	Director, Africa, Europe and Middle East Office FAA Office of International Aviation	Ms.	Kate	Lang
278	United States, Federal Aviation Administration (FAA)	Manager, Africa, Europe and Middle East Office, FAA Office of International Aviation	Ms.	Chris	Sharp
279	Zambia Department of Civil Aviation	Team Leader EU Aviation Project	Mr.	Branko	Kochovski
280	Zambia Department of Civil Aviation	Director General of Civil Aviation	Mr.	Gabriel	Lesa
281	Zambia Department of Civil Aviation	Managing Director	Mr.	Robinson	Misitala

AFRICA-INDIAN OCEAN (AFI) AVIATION SAFETY SYMPOSIUM

Dakar, Senegal, 27 to 28 May 2014

SESSION 1

Setting the scene – How far have we gone towards improving aviation safety in the AFI Region? Can we do more to support its air transport development?



1 **SESSION 1: SETTING THE SCENE – HOW FAR HAVE WE GONE TOWARDS IMPROVING AVIATION SAFETY IN THE AFI REGION? CAN WE DO MORE TO SUPPORT ITS AIR TRANSPORT DEVELOPMENT?**

1.1 Mr. Mohamed Elamiri presented the status of safety and air navigation performance in the AFI Region. During his presentation, he informed the attendees to the Symposium about the continuous growth of air traffic globally. He recalled the aviation safety targets agreed by Ministers attending the Conference on Aviation Safety held in Abuja, Nigeria in July 2012, which were endorsed by the Assembly of Heads of States of the African Union in January 2013. His presentation is available at www.icao.int/Meetings/AFIsymposium2014/Documents/Session%201%20-%20ICAO,%20DD-SMM%20-%20Setting%20the%20scene.pdf.

1.1.1 With regard to the targets related to the safety record, he pointed out that the efforts taken to assist the AFI Region have had tangible results. Current figures indicate that the region is heading in the right direction towards a progressive reduction of the African accident rate to be in line with the global average by the end of 2015 and a reduction of runway-related and Controlled Flight Into Terrain (CFIT) accidents.

1.1.2 In relation to the targets on regulatory oversight, he mentioned that all States should endeavour to establish stronger and autonomous civil aviation authorities, encouraged the seven remaining States with Significant Safety Concerns (SSCs) to address them as a matter of priority as well as all African States to progressively increase the Effective Implementation (EI) score of ICAO's Universal Safety Oversight Audit Programme (USOAP) results to no less than 60 per cent. For those States that have reached this target, he invited them to begin the implementation of safety management practices, including the State Safety Programmes (SSPs) and ensure that all service providers implement a safety management system (SMS) by the end of 2015 to address risks specific to its aviation system. In this regard, Mr. Elamiri mentioned that recent corrective actions implemented by Senegal, Burkina Faso and Madagascar have resulted in the achievement of the target of 60 per cent EI. It was recalled that twenty-six ICAO Plans of Action had been developed, submitted and accepted by the Ministers responsible for air transport to assist those States in reaching the targets related to regulatory oversight. In particular, he mentioned the USOAP results improvement by technical area in the AFI Region and noted that the Comprehensive Regional Implementation Plan for Aviation Safety in Africa (AFI Plan) has been expanded as a means to support the progress in those areas that remain behind the targets, i.e. Aircraft Accident and Incident Investigation (AIG), Air Navigation Services (ANS) and Aerodromes and Ground Aids (AGA). The improvement that States have undergone through the USOAP Continuous Monitoring Approach (CMA) processes was also shown. In addition, he showed the potential USOAP improvement in the AFI Region that can result from the effective implementation of the actions proposed by States to address the deficiencies identified during the Comprehensive Systems Approach (CSA) cycle of the USOAP.

1.1.3 The last set of the safety targets relates to the industry involvement, which involves all African airlines to undergo an International Air Transport Association (IATA) Operational Safety Audit (IOSA) audit and the certification of all international aerodromes by 2015. He noted, that the Airports Council International (ACI) initiative "Airport Excellence in Safety (APEX)" may support the aerodromes authorities to reach this goal. He noted that APEX provides assistance for ACI members to improve their level of safety and compliance with ICAO Standards and Recommended Practices through a Safety



Review performed on-site. The ACI Safety Review Team identifies the safety gaps, as well as draws an action/implementation plan for the Host Airport to address these vulnerabilities. This programme, launched in 2011 in Lomé, Togo, had conducted four Safety Reviews in Africa from 2011 to 2013 and seven will be delivered in 2014. Further information can be found at www.aci.aero/apex.

1.1.4 With regard to air navigation, he informed the meeting that ICAO's priority in this area is the implementation of Performance-based Navigation (PBN). He noted that during the 37th Session of the ICAO Assembly, States agreed to complete a PBN implementation plan as a matter of urgency to achieve implementation of approach procedure with vertical guidance (APV) for all instrument runway ends by 2016. It was indicated that the PBN implementation in Africa was lagging behind the world's average, and Mr. Elamiri encouraged States in the AFI Region to send their PBN implementation plan to the relevant Regional Offices to expedite PBN implementation, especially with regard to approaches with vertical guidance, and to provide support to the African Flight Procedure Programme (AFPP) by becoming an active participant.

1.1.5 Finally, he opened the Session for discussion with the question: Can we do more to support air transport development in the AFI Region?

1.2 Mr. Amadou Ousmane Guitteye, Director General, Agency for Air Navigation Safety in Africa and Madagascar (ASECNA) provided his views on the status of air navigation performance in the AFI Region. He indicated that although the market share of the African air transport remains modest, the risk has increased with the growth of air traffic in Africa with a rate close to 7 per cent. Therefore, improving the safety of air transport in the AFI Region is considered essential in the context of sustainable development and effective integration of African economies into the global market.

1.2.1 He pointed out that ASECNA strongly considers the issues and challenges facing the air transport safety in the AFI Region, indicating that all stakeholders must develop more synergies in order to significantly improve safety in the region.

1.2.2 Mr. Guitteye indicated that cooperation and harmonization at the global, regional and bilateral level will undoubtedly help to develop supportive programmes for the implementation of best practices and at lower costs. He emphasized that cooperation and coordination of efforts for capacity building are desirable at all levels for efficiency, in particular between partners of the same platform, or between states and organizations.

1.2.3 Mr. Guitteye also commended the actions of the AFI Plan for Aviation Safety in Africa developed by ICAO and the Abuja safety targets adopted by the African Union indicating that ASECNA, as a provider of air navigation services, contributes to ensuring continuous improvement of safety throughout its airspace and supports its Member States in training, audit preparation and capacity building of the Civil Aviation Administrations.

1.2.4 He also indicated that ASECNA continues to intensify its efforts to contribute to the enhancement of the rate of EI of ICAO Standards and Recommended Practices (SARPs) in the AFI Region. This commitment and contribution of ASECNA occur through the offices of the AFPP and the AFI Global Navigation Satellite System (GNSS) Programme, all housed in Dakar on behalf of all African States.



Mr. Guitteye also invited all African States to join and support the AFPP Programme whose activities will start officially in the coming weeks.

1.2.5 Closing his intervention, Mr. Guitteye stressed the need for relevant African authorities to refrain from political interference in technical aviation matters. This has been seen as one of the greatest threats to aviation safety and has impacted even African champions in the continent.

1.3 In his opening remarks, Colonel Dokisime Gnana Latta, Vice-President, African Civil Aviation Commission (AFCAC), recalled the Abuja Declaration on Aviation Safety in Africa that details the high-level commitments by the Ministers to provide a common frame of reference on aviation safety initiatives and aviation safety targets for implementation within the AFI Region. The initiatives and targets are covered by the Plan of Action that includes policies, institutional and regulatory requirements as well as specific deadlines.

1.3.1 He also indicated that the Abuja targets are aligned with the ICAO Strategic Objectives for safety which were recently introduced in the AFI Plan work programme. He noted that there is a need to streamline, bring up to date and consolidate these elements. Col. Latta stressed the political will and support demonstrated at the Ministerial Conference on Aviation Safety which will significantly help to implement aviation safety in the AFI Region, to strengthen regulatory oversight and enhance safety performance.

1.3.2 AFCAC's representative mentioned that the Conference directed that AFCAC establish effective monitoring and reporting mechanisms for this Declaration along with other resolutions and regional initiatives. AFCAC has adopted the monitoring and follow-up mechanism developed by ICAO. Requests for information have been sent to all relevant stakeholders including African States, African Airlines Association (AFRAA), ACI Africa, ICAO and IATA in June 2013 to facilitate monitoring and follow-up on efforts towards the attainment of the safety targets. Col. Latta mentioned that as of February 2014, only four States: Ethiopia, South Africa, Togo and the United Republic of Tanzania have responded to the AFCAC request for the required information to populate the monitoring framework.

1.3.3 Col. Latta indicated that during the Second Meeting of the Africa-Indian Ocean Regional Aviation Safety Group (RASG-AFI), this situation was recognized through the discussion of the working paper presented by AFCAC entitled: Conclusion 2/2: Monitoring and Follow-up Mechanism for Abuja Safety Targets. He recalled that "States are urged to take ownership of and implement the Abuja aviation safety targets, and in so doing, provide AFCAC with information and data on their implementation status for monitoring purposes, as and when required".

1.3.4 While the only available source of data on the level of attainment of the safety targets is the Safety Regional Performance Dashboard developed by ICAO, Col. Latta mentioned that to support individual African States, AFCAC would still require State by State data to assist in monitoring implementation of the Abuja safety targets. He concluded his intervention by encouraging all States and international organizations to provide AFCAC with this information to support the monitoring of targets.

1.4 Mr. Peter Bombay, Deputy Head of Unit, Aviation Safety, Directorate General for Mobility and Transport of the European Commission (EC), provided the views of the EC as an aviation safety partner in this region. He started his intervention by bringing a number of problems that exist in

Africa but underlined that they are not specific to Africa. He noted that public funds are more and more scarce and that in difficult financial contexts, Governments must make choices and aviation safety is not always seen as a priority. He mentioned that many African States have problems in acquiring a critical mass to sustain an efficient safety oversight system and retaining qualified staff can be challenging, as the competition for qualified and skilled staff is felt worldwide. In relation to building regional cooperation, he pointed out that this implies transfer of powers which is usually not natural for National Administrations. In States where aviation is growing very fast, often the aviation authorities do not manage, or are not given the means to keep pace with this growth in relation to their oversight role.

1.4.1 With regard to the issues not exclusive to Africa but more present than on average, Mr. Bombay recalled the instability at the Heads of Civil Aviation Authorities, resulting in difficulties in developing and implementing a long-term vision. He also mentioned the complexity of regional frameworks, e.g. Banjul Accord Group (BAG), West African Economic Monetary Union (UEMOA), Economic Community of West African States (ECOWAS), ASECNA, African Union (AU)/AFCAC. He recalled the fact that in certain States, the instability of Directors General of Civil Aviation becomes a safety challenge that should be recognized by the Heads of States. The difficulty of retaining qualified operational staff is greater in Africa than in other parts of the world. He mentioned that administrations' salaries are even less competitive on the worldwide market than what administrations can offer in richer countries. The situation is sometimes better in cases where an independent Civil Aviation Authority (CAA) exist, but due to sometimes low levels of activity, the fees and charges basis to finance the CAA is limited.

1.4.2 Mr. Bombay mentioned the perception that aviation is a sector "for the rich", whereby it is often difficult to "market" the huge positive effects on tourism and trade, and therefore on the overall economy, of safe aviation. He noted that this perception is also a problem for the European Union (EU) and for its Member States in their technical assistance efforts, where it is hard to convince development agencies that providing adequate resources for technical assistance in aviation in general and aviation safety in particular is a key investment in the development of any country, and even more so in regions where the absence of, or the costs involved in, long-range road infrastructure makes aviation even more important.

1.4.3 However, Mr. Bombay argued the reasons to be optimistic for Africa. He pointed out that the economic growth on the continent and its outlook is promising. The existing regional political structures (e.g. UEMOA, East African Community (EAC), Economic and Monetary Community of Central Africa (CEMAC)) and technical structures (e.g. ASECNA) along with political commitments at the continental level, including the Abuja Declaration and the cooperation partners, demonstrates the interest in enhancing safety and air navigation in the region. He said that while progress has been achieved, there is a need to put together the Heads of States to keep the momentum in attaining the targets agreed by all African States.

1.4.4 He mentioned the need for sustainable solutions. At the national level, he noted that appropriate resources and employment conditions are necessary to address the disconnection and sometimes difficult functioning of National Administrations responsible for safety oversight. Mr. Bombay encouraged States to promote autonomous CAAs with their own resources, citing AFCAC Resolutions that already call for this action, and the departure from administrative staff salary scales.

1.4.5 At the continental level, he indicated that synergies and cooperation between various technical cooperation projects from different sources will streamline collective efforts, avoid duplications and focus collectively on the most pressing needs. These actions will positively affect safety as a return on each investment.

1.4.6 Closing his intervention, he stressed that aviation safety is to be recognized at the highest level as aviation is a *sine qua non* condition for economic growth. Relevant aviation authorities should have sufficient resources to effectively discharge their safety oversight responsibilities. Sufficient and independent staffing of organizations was also highlighted. Mr. Bombay said that it is essential to overcome National Aviation Administration's reluctance to the creation of powerful and efficient Regional Safety Oversight Organizations (RSOOs) whereby such political support would help attract foreign financial support. He stressed that regional cooperation is required to succeed in the common endeavour of enhancing aviation safety and cited the AFI-Cooperative Inspectorate Scheme (CIS) as a good example of this cooperation effort. He concluded by noting that significant progress has been achieved, but work is still needed to achieve our objectives. He reaffirmed that the EC and European Aviation Safety Agency (EASA) will continue to support the further improvement of safety in Africa.

1.5 Ms. Catherine Lang, Director of the Europe, Africa, Middle East Office, U.S. Federal Aviation Administration (FAA) expressed her gratitude to represent the U.S. Department of Transportation, Secretary Foxx and FAA Administrator Michael Huerta to provide an update on both the Safe Skies for Africa (SSFA) Program and FAA's initiatives in the AFI Region. She recalled that in 1998, President Clinton created SSFA to assist African States in improving aviation safety, security, and air navigation while fostering technical self-sufficiency. Safe Skies, she mentioned, continues to be part of the White House Africa Program, and it is an important part of President Obama's agenda.

1.5.1 Ms. Lang mentioned the nimbleness of SSFA, and that it has succeeded by using the expertise not only from FAA, but also National Transportation Safety Board (NTSB), Transportation Security Administration (TSA), other U.S. Government partners working together with AFI. She noted that sixteen years ago, Department of Transportation (DOT) started working with ten African States, but the programme evolved to a more regional approach in alignment with AU and ICAO's support to RSOOs in order to maximize its scope.

1.5.2 With regard to the support that this programme provides, Ms. Lang indicated that the NTSB has been providing accident investigation training across the continent, on-job training during accident investigations and support to the Government of Kenya's Accident Investigation agency and the East African Community Civil Aviation Safety and Security Oversight Agency (CASSOA) with in-depth on-job training.

1.5.3 In relation to training, Ms. Lang said that the TSA and FAA have trained thousands of aviation safety and security professionals in Africa. The representative of the FAA also reaffirmed the partnership fostered with AFI stakeholders. She recognized Ms. Connie Hunter, who was the Manager of this assistance effort since its inception and attended the event, and introduced the new Program Manager, Ms. Shelia Helton-Ingram.

1.5.4 She mentioned that going forward, DOT Secretary Foxx is interested in programmes that are specific, measureable, and can be defined in concrete terms; and FAA Administrator Huerta has

re-doubled the commitment to Global Leadership prioritizing the FAA's needs on a data-driven basis. As a consequence, Ms. Lang indicated that the FAA sent a survey to their African partners that yielded responses from twenty-two States and seventeen organizations, including ICAO, AFCAC, AFRAA, ASECNA, IATA, and the International Federation of Air Traffic Controllers' Associations (IFATCA). Seventy-one percent of respondents wanted the FAA to continue technical assistance, including training programmes and on-the-job training. The priority areas for technical assistance and training identified through this exercise were aviation safety (on-the-job training and safety inspector training in operations); air navigation (assistance with ICAO system block upgrades, aviation English language training and recurrent or advanced training); and aerodromes (aerodrome certification, aerodrome inspection training and wildlife hazard management training). These priorities coincide with ICAO's priorities and the Abuja safety targets. In order to address these priority areas, the FAA is fostering AFI Plan Safety Initiatives, such as the establishment of runway safety teams for airports at high risk of runway excursions, assistance with aerodrome certification and air navigation services initiatives.

1.5.5 In relation to air navigation, Ms. Lang noted the emphasis added to this area by the AFI Plan and introduced Mr. Kevin Haggerty, FAA's Air Traffic International Liaison Officer for Africa. She mentioned that FAA has attended the ATS Incident Analysis Group and Tactical Action Group meetings in Johannesburg in March, and has met with the African Regional Monitoring Agency (ARMA), Civil Air Navigation Services Organisation (CANSO), IATA and ASECNA to identify data-driven indicators and means to cooperate in this area. She affirmed the FAA's commitment to ICAO's Aviation System Block Upgrade methodology and the interoperability of a global air navigation system. She also pointed out that the oversight of air navigation service providers (ANSPs) is the responsibility of each State. Ms. Lang then introduced Mr. Tony Ferrante, Director of Air Traffic Oversight Services for FAA, who was at the Symposium and shared his experience in this area in Session 2.

1.5.6 Closing her intervention, Ms. Lang reiterated the DOT/FAA's interest in refining potential initiatives that can be worked collectively within the next two to three years and invited participants to share their feedback on the suggested initiatives.

1.6 Ms. Tanja Grobtek, Regional Director Africa, International Air Transport Association (IATA), expressed her satisfaction for being part of this Symposium as well as the Ministerial Conference on Aviation Safety in Africa held in Abuja Nigeria in July 2012. In this regard, she recalled that the initiatives and targets have been agreed by Ministers responsible for air transport and developed by regulators and industry – the very same stakeholders attending this Symposium. While the targets are challenging, she recognized that these targets are considered realistic and achievable.

1.6.1 She indicated that one of the areas that service providers should focus on is the implementation of safety management systems. As traffic grows, the aviation system becomes more complex; thus, all stakeholders must cooperate to address emerging safety risks associated with the development of the aviation system. Ms. Grobtek indicated that there is a need to evolve from proactive data analysis to predictive data analysis in Africa. As proactive safety management practices are data-driven, it is necessary to facilitate the collection and analysis of information to identify and address risks specific to its aviation system, and she called for consolidation and collaboration of databases hosted by various stakeholders.



1.6.2 Ms. Grobrotek made reference to the Abuja target that requires all African airlines to undergo an IOSA audit by the end of 2015. She mentioned that IATA is working and is providing assistance and training to operators willing to complete the IOSA audit. She stressed the need for regulators to keep focus and support this initiative by encouraging their certified airlines to complete this programme. Ms. Grobrotek indicated that numerous operators approached IATA for assistance towards IOSA, to be advised that their type of operations is not eligible for IOSA audit because of operating aircraft below 5,700 kg Maximum Take-off Weight. Because of the vast amount of operators and flights performed are outside the scope of IOSA, IATA has taken the opportunity to utilize all reasonable synergies provided by IOSA to develop a new evaluation programme for the industry called IATA Standard Safety Assessment (ISSA), which could cater for needs of all operators who want to improve their level of safety but do not fall under IOSA scope.

1.6.3 Finally, Ms. Grobrotek also mentioned IATA's support to paperless operations and encouraged States to populate the Air Operator Certificate (AOC) database. The population of data in this system will streamline and facilitate the conduct of operations in this part of the world. In identifying the relation between airlines and air navigation services, she encouraged States to implement the ASBU methodology recalling that airlines depend on the navigation service, and in turn ANSP also rely on airlines to comply with aircraft equipage to utilize ATM systems.

1.7 The Master of Ceremonies indicated that major issues in Africa remain the turnover of Director Generals in certain States, the continuous need to train and retain technical staff as well as the establishment of RSOOs to support States in safety oversight responsibilities. The assistance efforts of the SSFA and the EC were also recognized. He also encouraged all States to populate the AOC database that will facilitate the seamless operations across the world. He then opened the floor for questions.

1.7.1 The Director General of Mauritania asked whether it was ICAO's objective to require all States to certify and oversee ANSPs and if this Organization is working on the development of indicators and monitoring of air navigation services. He also inquired on the partners' views regarding the Centre of Training for Africa.

1.7.1.1 Mr. Guitteye said that the provision of air navigation services is a State responsibility and ICAO has provided guidance material in this regard. The State has to ensure that those services are met in accordance with the international requirements. Mr. Elamiri also indicated that ICAO and, in particular, the Air Navigation Commission is considering the development of these requirements and indicators, and monitoring of this area is also to be considered by the AFI Plan Steering Committee that followed the Symposium.

1.7.1.2 With regards to the Centre of Training for Africa, Ms. Lang noted that for the FAA, training is considered a priority for safety. She expressed that they are ready to support African Aviation Training Organizations (AATO) and is committed to work in the region in this regard.

1.7.2 The manager of the EU assistance project in Zambia raised the issue of funding to develop infrastructure in Africa. He mentioned that resources are collected by governments for services provided but are not necessarily invested in aviation. He asked aviation safety partners to inform the audience about their views regarding the use of levies towards aviation.



1.7.2.1 Col. Latta stressed the need for an effective and clear separation between the regulatory authority and service providers to foster compliance with the principles of safety contained in the Convention on International Civil Aviation and related requirements. With regard to the funds, he mentioned that there is a need to identify the means to facilitate the investment of collected user fees and taxes in aviation infrastructure. Mr. Guitteye pointed out that it is essential to enable the traffic to grow in order to generate revenues that should be invested in the services provided.

1.7.3 The Representative of Sudan asked if there is a need for the independence of CAAs and the avoidance of political interference.

1.7.3.1 Mr. Guitteye said that there is a need for close cooperation between the Minister responsible for civil aviation and the CAA that should be based on an open dialogue and transparency. However, authorities should refrain from political interference with the technical functions of CAAs led by Directors General of Civil Aviation.

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AFRICA-INDIAN OCEAN (AFI) AVIATION SAFETY SYMPOSIUM

Dakar, Senegal, 27 to 28 May 2014

SESSION 2

What are the main efforts made by aviation safety partners to support the improvement of aviation safety and air navigation performance?



2 **SESSION 2: WHAT ARE THE MAIN EFFORTS MADE BY AVIATION SAFETY PARTNERS TO SUPPORT THE IMPROVEMENT OF AVIATION SAFETY AND AIR NAVIGATION PERFORMANCE?**

2.1 Mr. Farid Zizi, President, Air Navigation Commission of ICAO, opened the session by asking if the following topics are perceived as challenges for aviation safety partners:

- a) Partnership, cooperation or assistance?
- b) Capacity building and autonomy?
- c) Optical compliance or substantive progress?
- d) Training yes, but how to keep competent people on the long-term?
- e) Just Culture, How to be transparent without appearing unsafe?

2.2 Mr. Moussa Halidou, AFI Plan Chairperson, presented the status of the AFI Plan, RASG-AFI and AFI Planning and Implementation Regional Group (APIRG). The presentation highlighted the background and context of the AFI Plan, as well as its objectives, its implementation status, the synergy and cooperation, plus the perspectives and challenges facing by this programme. The presentation is available at www.icao.int/Meetings/AFIsymposium2014/Documents/Session%202%20-%20AFI%20Plan%20Steering%20Committee%20-%20Overview%20of%20the%20AFI%20Plan,%20APIRG%20and%20RASG-AFI%202.pdf

2.2.2 He indicated that the objectives of the AFI Plan are the following:

- a) to strengthen civil aviation authorities with respect to their safety oversight capabilities;
- b) to increase compliance with ICAO SARPs and industry's best practices;
- c) to increase the number of qualified personnel at the industry and oversight levels;
- d) to improve the quality of inspectors and other civil aviation staff through training;
- e) to ensure expeditious implementation of aviation safety management systems for airports, air navigation services providers and airlines; and
- f) to improve assistance in oversight to Least Developed States.

2.2.3 Mr. Moussa mentioned that the AFI Plan work programme was developed around three focus areas to give effect to its objectives:

- a) enabling States to establish and maintain a sustainable safety oversight system;
- b) assisting States to resolve identified deficiencies within a reasonable time; and
- c) enhancing aviation safety culture of African aviation service providers.

2.2.4 Among the significant assistance provided by this initiative, he mentioned that support has been provided to establish or strengthen RSOOs in the following regions:

- a) Banjul Accord Group (BAG) States;
- b) East African Community (EAC);



- c) Central African Economic and Monetary Community (CEMAC);
- d) Southern African Development Community (SADC);
- e) West African Economic and Monetary Union (UEMOA) States and Mauritania; and
- f) Seven Partner States (Djibouti, Egypt, Eritrea, Ethiopia, Libya, Somalia and Sudan).

2.2.5 A total of sixty training courses and workshops were delivered in the following fields, benefitting over 2,230 officers from various States in the AFI Region.

- a) Government Safety Inspectors (GSI- OPS);
- b) Government Safety Inspectors (GSI- AIR);
- c) Government Safety Inspectors (GSI – PEL);
- d) Government Safety Inspectors (Aerodrome);
- e) SSP and SMS;
- f) Safe Transport of Dangerous Goods;
- g) Aviation Medicine; and
- h) European Co-ordination Centre for Accident and Incident Reporting Systems (ECCAIRS).

2.2.6 In order to support harmonization of training activities in the AFI Region, the AFI Plan promoted and assisted in the establishment of AATO. He mentioned that the Constitutive Assembly of AATO was held in Abuja , Nigeria, from 12 to 14 April 2013.

2.2.7 Up to 2013, twenty-eight ICAO Plans of Action have been accepted at the Ministerial level to support States in resolving safety deficiencies identified by the USOAP by proposing a set of comprehensive remedial actions from the technical and political aspects.

2.2.8 Mr. Moussa also informed that close coordination and a good synergy exist between the AFI Plan, APIRG and RASG-AFI.

2.2.9 He then shared his perspective and the challenges identified to continue the implementation of the AFI Plan based on the three focus areas:

- a) assist States concerned to resolve SSCs;
- b) support the ICAO Plans of actions and AFI-CIS;
- c) assist in capacity building through training;
- d) promote and strengthen RSOOs; and
- e) foster the synergy with all the regional groups.

2.2.10 He finally indicated that the AFI Plan will support States in achieving the Abuja safety targets, including the progressive increase the EI score of ICAO's USOAP results to no less than 60 per cent.



2.3 Dr. Norbert Lohl, Certification Director, European Aviation Safety Agency (EASA) presented the technical assistance and projects being implemented in the AFI Region. The presentation is available at www.icao.int/Meetings/AFIsymposium2014/Documents/Session%202%20-%20EASA.pdf

2.3.1 Dr. Lohl mentioned that the European regulation establishing EASA mandates the Agency to cooperate with authorities of third countries and international organizations competent in the field of aviation safety. He mentioned that EASA was doing so around the world and, in particular, in the AFI Region where the Agency is managing three EU funded projects: Support to the Improvement of Aviation Safety in Africa (SIASA), Central Africa Aviation Safety Project (CAASP) and Malawi.

2.3.1.1 Besides these specific projects, Dr. Lohl indicated that EASA was also inviting interested parties to participate in specific events the Agency is organizing, such as the fourth edition of the International Cooperation Forum (ICF) that would take place from 11 to 12 June 2014 in Cologne, Germany, or specific workshops/trainings. At the request of CASSOA, EASA has developed a safety data management tool called SOFIA, which is being dispatched in the AFI Region as well as in the rest of the world.

2.3.1.2 Dr. Lohl informed attendees that EASA does not work isolation but coordinates its actions with different partners present in the field, including ICAO and its AFI Plan (coordination that is conducted through the Regional Offices in Dakar and Nairobi), AFCAC and its AFI-CIS, financial partners such as the African Development Bank (AfDB) or the European Investment Bank (EIB). Through its actions, he pointed out that EASA is contributing to the achievement of the High-level Safety Targets adopted during the Ministerial Conference on Aviation Safety held July 2012 in Abuja, Nigeria.

2.3.2 Dr. Lohl then provided an updated on the support that EASA is providing through the SIASA project that started in January 2013 and concerns all sub-Saharan States. He indicated that its purpose is:

- a) to ensure the development of common regional safety standards and procedures meeting the international requirements in civil aviation (ICAO standards) and eventually the EU aviation safety rules; and
- b) to contribute to the establishment of effective and sustainable RSOOs via institutional assistance and training of staff.

2.3.2.1 Participants were informed about the inception phase of SIASA during which EASA visited the Regional Offices in Dakar and Nairobi as well as AFCAC. The existing Cooperative Development of Operational Safety and Continuing Airworthiness Programmes (COSCAPs) and RSOOs were also contacted for coordination purposes. Out of these meetings, an action plan was developed around the five following axis:

- a) assistance to States with safety concerns;
- b) regulation and guidance material;
- c) workshop organization;
- d) delivery of training; and
- e) organizational activities.



2.3.2.2 Dr. Lohl indicated that assistance to the States would start once the State selection has been approved by a Project Steering Committee. The development of ANS regulation is scheduled to start next month, and the working group for the development of Procedures for Air Navigation Services and Aircraft Operations and guidance material is under development. The project will support the participation of interested parties to the fourth ICF, taking place in June 2014. He also mentioned that, a workshop entitled “Technology evolution – Impact on airworthiness” is scheduled in September 2014 and would be organized in Windhoek, Namibia. A series of AOC Operational Specification training courses have already been delivered with a series of human factors courses that would follow. Under the organizational activities, some SOFIA implementation missions have already been carried out.

2.3.3 An update on the Central Africa Aviation Safety Project (CAASP), also known in French as ATA-AC (Amélioration du Transport Aérien en Afrique Centrale), was also presented. It was mentioned that this project started in August 2013 and targets the Economic Community of Central African States (ECCAS) Member States. The overall objective of the project is to contribute to the prevention of incidents and accidents, and the reduction of the incident and accident rate in air transport by:

- a) assisting the regional Aviation Safety Oversight Agency (ASSA-AC) based in N’Djamena, Chad to become operational;
- b) training the authorities’ personnel in charge of aviation safety (training of ASSA-AC and ECCAS Member States authorities technical personnel); and
- c) developing an action plan for bringing the main airports in Central Africa up to international standards.

2.3.3.1 Dr. Lohl mentioned that the support to the regional agency has already started and an aerodrome certification course has been delivered. In relation to the action plan related to the main airports of the region, the project plans to coordinate as much as possible with ACI for the implementation of APEX within this initiative.

2.3.4 Lastly, an update on the project Improvement of Aviation Safety Oversight in Malawi (IASOM) was also shared with participants. It was mentioned that the purpose of this project is to improve the authority’s compliance capability with international aviation standards in aviation safety oversight through:

- a) targeted capacity enhancement initiatives and strengthening of the institutional and regulatory framework, implementation of international civil aviation standards and, where appropriate, harmonization with EU standards;
- b) cooperation with European aviation authorities/agencies and relevant stakeholders; and
- c) policy support.

2.3.4.1 Dr. Lohl specified that the project inception phase ended up in April 2014 and that the action plan developed is articulated around five following pillars:

- a) aircraft accident investigation;
- b) regulatory and institutional framework;



- c) technical and organization capacity building;
- d) SOFIA implementation; and
- e) aviation studies.

2.4 Mr. Mesfin Fikru, Director Safety and Technical Services, African Civil Aviation Commission (AFCAC) delivered a presentation on safety assistance activities conducted by AFCAC, in particular the AFI Cooperative Inspectorate Scheme (AFI-CIS). The presentation is available at [www.icao.int/Meetings/AFIsymposium2014/Documents/Session%202%20-%20AFCAC%20-%20AFI%20Cooperative%20Inspectorate%20Scheme%20\(AFI-CIS\)%202.pdf](http://www.icao.int/Meetings/AFIsymposium2014/Documents/Session%202%20-%20AFCAC%20-%20AFI%20Cooperative%20Inspectorate%20Scheme%20(AFI-CIS)%202.pdf).

2.4.1 Mr. Fikru mentioned that an decision was adopted by the AFCAC Plenary with the aim to assist African States to achieve a 10 per cent annual improvement of their Effective Implementation of the Critical Elements of a safety oversight system over a period of two years and to remove all African States from the ICAO Monitoring and Assistance Review Board (MARB) list within the same period.

2.4.2 To meet the objectives of the decision by the AFCAC Plenary, the AFI-CIS project was launched by AFCAC with the technical support of ICAO in August 2011.

2.4.3 Mr. Fikru indicated that AFI-CIS was designed to assist States to develop and effectively implement safety oversight corrective action plans; and to carry out certification and surveillance activities in line with ICAO SARPs and relevant ICAO documents. He also pointed out that the activities of the initiative are prioritized as follows:

- a) resolution of SSC findings;
- b) removal of AFI States from the ICAO MARB list; and
- c) resolution of safety oversight deficiencies in general and improvement of EIs.

2.4.4 It was also indicated that a Memorandum of Understanding (MoU) is concluded between AFCAC, States providing inspectors and States receiving AFI-CIS missions as beneficiaries to formalize the working methods of the scheme. The MoU provides the basis for the utilization of national inspectors selected under the scheme. AFI-CIS inspectors continue to remain in the employment of their States; however, providing States undertake to make available those qualified inspectors that are selected under the scheme for AFI-CIS missions, as per the terms of the MoU. Furthermore, in line with the terms of the MoU, receiving/beneficiary States undertake to cover the costs of services provided by AFI-CIS without delay.

2.4.5 The MoU also specifies the responsibilities of AFCAC as the implementing agency and ICAO Regional Offices in Dakar and Nairobi in providing the required technical support to AFCAC in the implementation of the project. In addition, the MoU outlines the responsibilities of relevant regional bodies participating in the project, such as COSCAPs and RSOOs.

2.4.6 Mr. Fikru stressed that African States were requested to sign the AFI-CIS MoU for the implementation of the project and that as of May 2014, a total of thirty-four States and one RSOO have signed the AFI-CIS MoU. Two other RSOOs have participated in the project by providing qualified inspectors pending signature of the MOU.



2.4.7 Since its inception in December 2010, a total of eighteen assistance missions have been conducted to nine States. AFCAC has funded all the missions except two and has effectively coordinated with RSOOs/COSCAPs to avoid duplication of efforts thus ensuring efficient use of available expertise and resources.

2.4.8 It was indicated that a total of fourteen qualified inspectors (from six States, two COSCAPs and one RSOO) have been selected and provided with refresher training from 8 to 12 August 2011 in Dakar, Senegal, prior to their deployment. The training included State safety oversight obligations, aircraft operations and airworthiness aspects related to certification of air operators as well as systematic review of the State Corrective Action Plan in response to USOAP audit findings vis-a-vis the protocol questions.

2.4.9 Mr. Fikru stressed the coordination conducted with RSOOs and COSCAPs to promote exchange of reports on work carried out with the aim of facilitating follow-up activities. The Banjul Accord Group Aviation Safety Oversight Organization (BAGASOO), COSCAP-SADC (Southern African Development Community) and COSCAP-UEMOA have actively participated in the implementation of the initiative since its inception.

2.4.10 The following challenges in the implementation of the AFI-CIS were also noted:

- a) lack of timely feedback from States that have received AFI-CIS missions to allow for effective monitoring and implementation of progress on the provided Assistance Missions;
- b) difficulty in schedules of missions due to lack of timely responses from States during arrangements for such missions;
- c) lack of French speaking Flight Operations Inspectors have negatively impacted on the conduct of some of the missions as planned; and
- d) shortage of funds: Any beneficiary State that requests the services of the AFI-CIS Project for the conduct of certification, inspections, audits, etc. is required to cover the cost of travel and the daily subsistence allowance (DSA) of the inspectors as per the signed MOU. However, there has been a lack of cooperation from States in this regard. The project was initially designed to be funded through a cost recovery with contributions from donor States. However, since its inception, the project has been funded by AFCAC with cost recovery from only two States.

2.5 Mr. Anthony Ferrante, Director, Air Traffic Safety Oversight Service, U.S. Federal Aviation Administration (FAA) also delivered a presentation on the FAA's assistance efforts in Africa. The presentation is available at www.icao.int/Meetings/AFIsymposium2014/Documents/Session%20%20-%20US%20FAA.pdf.

2.5.1 Mr. Ferrante indicated that the FAA's objective is to steadily improve the safety of air traffic services and air traffic management throughout the globe by harmonizing standards and procedures; promoting risk-based oversight; promoting data collection, exchange, and data-driven decisions; and promoting a non-punitive safety culture.



2.5.2 It was mentioned that ICAO requires oversight of the vast areas of ATM- and ATS-related activities. He indicated that the FAA has established a new oversight organization, the Air Traffic Safety Oversight Service (AOV), which has matured a great deal since its inception in March 2005.

2.5.3 Mr. Ferrate pointed out that AOV has established personnel qualifications and training for its own inspectors. In addition, it established qualifications and training as well as requires biennial skills evaluations for air traffic controllers and technicians. Furthermore, it has instituted all the significant components of a risk-based surveillance system and uses a number of techniques to resolve safety concerns.

2.5.4 He concluded mentioning that AOV has learned a lot of lessons along the way and has developed a number of strategies for overseeing large organizations with few regulators. AOV has agreed to look for effective opportunities to share its experience and lessons learned with African States. It can offer a familiarization seminar on strategies for managing an effective ATM oversight organization. They have approximately thirty hours of material to support the effort.

2.6 Conclusions and recommendations

2.6.1 The following conclusions were agreed during this Session:

- a) Africa should coordinate its needs based on a regional approach, not with individual national requests, coordinated amongst all stakeholders by ICAO through the RASG-AFI and AFI Plan;
- b) Political commitment, at Ministerial and Head of State levels, to aviation, aviation safety and aviation safety oversight organizations is essential to support the air transport systems and its growth;
- c) CAA organizations and management need to be strong;
- d) Assistance should be provided through partnerships. The meeting thanked all the assistance donors, including the United States, European Union, Development Banks, and ICAO, and the States which have contributed to the ICAO SAFE Fund and AFI Plan;
- e) Safety should be examined as a total system and not separately by individual elements; and
- f) Maintaining ANSPs as part of the same Government agency as CAAs is feasible if organizational separation exists and effective safety oversight can be maintained. In this regard, collaboration between the service provider and regulatory oversight is encouraged to minimise conflicts. Privatisation of ANSPs should only be considered if financially beneficial.

2.6.2 The following recommendations were agreed during this Session:

- a) There should be no more proliferation of the establishment of new organizations which duplicate the activities of existing organisations;



- b) Cooperation and coordination between ICAO, AFCAC, States, RSOOs, COSCAPs and Assistance Partners is essential to avoiding duplication and wasted resources;
- c) State(s) to State(s) assistance is encouraged;
- d) EASA to invite ICAO to International Cooperation Forum;
- e) States to lend inspectors to the AFCAC AFI-CIS as contributions in-kind;
- f) States should nominate candidates for training based on human resources policy including recruitment, training and retention plans. Training providers should select candidates for training based on strict criteria;
- g) Safety data should be shared to avoid duplication in analysis and support predictive data-driven decision making; and
- h) States and Donors should support RSOOs but overlap in RSOO membership and activities should be avoided.

2.7 The preliminary outcomes of Session 2 are presented in the Attachment.

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ATTACHMENT PRELIMINARY OUTCOMES

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
2.1	Support to the Improvement of Aviation Safety in Africa (SIASA)	Assistance missions regulation and guidance material Workshop Training SOFIA ECCAIRS RSOO	EU Funds	?	States to take advantage of assistance offered	EASA
2.2	Central Africa Aviation Safety Project (CAASP)	ASSA-AC Training Workshop Aerodrome study	EU Funds	?	States to take advantage of assistance offered	EASA
2.3	Assistance to individual States	Accident & incident investigation regulatory and institutional framework Technical and organizational capacity building SOFIA Aviation safety studies	EU Funds	?	States to request assistance	EASA
2.4	Support the improvement of ATM safety	Seminar on strategies for managing an effective ATM oversight organization	US Technical Assistance	?	ICAO to coordinate training under AFI Plan	US FAA

¹ The topic should be linked to:

- i) Assistance to the States in the establishment or strengthening of State safety oversight system, an RSOO or RAIO;
- ii) Assistance to States in resolving identified deficiencies within a reasonable time frame, including the implementation of ICAO Plans of Action;
- iii) Enhancement of aviation safety culture of African aviation service providers; or
- iv) Programme of activities under the AFI Plan 2014.

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
2.5	Safe Skies for Africa	Training	US Technical Assistance	?	States to take advantage of training offered	DOT
2.6	IATA Operational Safety Audit (IOSA)	Assistance to airlines to prepare	IATA funds	?	Airlines to request assistance	IATA
2.7	AFI Cooperative Inspectorate Scheme (AFI-CIS)	Assistance to States for resolving deficiencies related to the AOC process	Funding for inspector training and missions	?	UAE offered support which needs to be detailed ICAO considering support from SAFE fund	AFCAC
2.8	AFI Plan	Assistance projects	Republic of Korea funds in SAFE Fund	2016	Assistance projects to be coordinated by ICAO	ICAO
2.9	AFI Plan	Guidance on Human Resource Management Policies			Articulation Initial Training, Continuous training, Retaining Competent personnel on post	
2.10	AFI Plan, RSOO	Guidance on AFI Regional and Sub Regional Organisations	UAE	2015	Clear Description of Regional and Sub Regional Organisations and their Mandate with focal points	ICAO, AFCAC

AFRICA-INDIAN OCEAN (AFI) AVIATION SAFETY SYMPOSIUM

Dakar, Senegal, 27 to 28 May 2014

SESSION 3

What are the success stories in the AFI Region and how can we learn from them?



3. SESSION 3: WHAT ARE THE SUCCESS STORIES IN THE AFI REGION AND HOW CAN WE LEARN FROM THEM?

3.1 Ms. Iyabo Sosina, Secretary General, African Civil Aviation Commission (AFCAC) anchored the presentations made by speakers from Sudan, Zambia, Mauritania and Côte d'Ivoire.

3.2 General Yousif Ibrahim Ahmed, Deputy Director General, Sudan Civil Aviation Authority (CAA) shared an amazing story of how it had been tremendously committed, under a strong leadership of high-level officials, to resolving the Significant Safety Concern (SSC) related to the certification pertaining to the issue of air operator certificate (AOC) as a result of the ICAO Coordinated Validation Mission (ICVM) undertaken in December 2011. He could not help but, at this juncture, commend the concerted efforts made by Sudan within a short period of three months to not only enable the air operators concerned to get back to normal business without compromising safety, but also to reinforce the State's safety oversight system. He said that a harmonized and systematic approach within the organization, using resources available to the maximum extent possible had enabled the CAA of Sudan to resolve this imminent safety issue, had resulted in an extraordinary outcome that States in this regard have rarely been able to achieve. Moreover, he mentioned that Sudan has put a robust AOC certification and surveillance programme in place, as illustrated by the fact that some operators have been out of business as a result of the cancellation of their AOCs due to a failure to meet requirements imposed by continued surveillance activities and some new air operator applicants failed to effectively meet the AOC requirements established in the State. The presentation is available at www.icao.int/Meetings/AFIsymposium2014/Documents/Session%203%20-%20Sudan%20-%20SSC%20experience.pdf.

3.3 Mr. Gabriel Lesa, Acting Director, Department of Civil Aviation of Zambia shared Zambia's experience with the resolution of the SSC pertaining to issuance of AOC shows which would have been almost impossible to achieve without comprehensive and systematic support at the Governmental level, not to mention a long-term investment to reinforce the safety oversight system. Mr. Lesa indicated that this successful outcome was possible in large part thanks to many assistance providers since the identification of the SSC, to include AFCAC's AFI-CIS, ICAO Regional Office Safety Team (ROST) missions provided by the Eastern and Southern African Office in accordance with ICAO Plan of Action, and other assistance provided by the European Union and other various donors. Moreover, it is particularly to be applauded that even after the resolution of the SSC, Zambia continued to strengthen its safety oversight functions by paying attention to capacity building, restructuring its organization into an autonomous civil aviation authority, updating relevant regulations in compliance with ICAO Standards and Recommended Practices (SARPs), recruiting new leadership and adding experienced technical staff and so on. This is exactly the way many States with SSCs need to pursue to make their safety system more sustainable and robust. The presentation is available at www.icao.int/Meetings/AFIsymposium2014/Documents/Session%203%20-%20Zambia%20-%20SSC%20experience.pdf

3.4 Mr. Aboubekrine Seddigh Ould Mohamed El Hacen, Director General, National Civil Aviation Agency (ANAC), Mauritania shared how the State has achieved an extraordinary result of realizing 60 per cent Effective Implementation (EI) within a short period. The ICAO USOAP comprehensive systems approach (CSA) audit in April 2008 resulted in an overall EI of 32 per cent. Under a strong leadership of the Civil Aviation Authority, a huge investment in restructuring the Organization



and recruiting additional technical staff has made it possible for it to advance to a score of 73.94 per cent as of today. Among these efforts are a collaborated coordination with partners, including ICAO, France, ASECNA and EASA. Furthermore, he mentioned that Mauritania has now set a new target of 85 per cent to be achieved in 2014, by continuously strengthening its capacity for certification and surveillance of air operators and aerodromes to be in line with the Abuja Safety Targets. The State is now actively participating in Regional Aviation Safety Group in the AFI Region (RASG-AFI), through which it is expected to contribute to other States in need of assistance.

3.5 M. Sinaly Silue, Director General, National Civil Aviation Agency (ANAC), Côte d'Ivoire introduced an excellent example of how an effective ICAO Plan of Action developed for the State was created and how it played a major role in realizing the enhancement of its safety oversight system. The results of the ICVM conducted in March 2014 has tentatively revealed that it has achieved the increase of overall Effective Implementation (EI) from 43 per cent to 55 per cent. The State concluded that the only long-term assistance provided by any partner organization apart from ICAO was by the COSCAP-UEMOA as it could not access even World Bank loans because of the political crisis that ensued in the State. Nevertheless, it would not have acquired such a great enhancement without putting the ICAO Plan of Action in place. At the same time, it emphasized that intensified assistance missions provided by the ICAO Regional Office Safety Team (ROST) significantly contributed to this achievement. He also considered to be worth mentioning that well-organized and concerted efforts made by the CAA staff in coordination with the Regional Office to timely update and implement the Corrective Action Plan (CAP) through the ICAO Online Framework (OLF) was another contributing factor. The presentation is available at www.icao.int/Meetings/AFISymposium2014/Documents/Session%203%20-%20Cote%20d%27Ivoire%20ANAC.pdf.

3.6 Summary of discussions

3.6.1 The success stories and lessons-learned provided by these four States drive home the lesson that without a strong commitment from high-level management of Government, well-organized team work and concerted efforts by involved individuals and/or entities, including industry, major safety shortcomings like SSCs cannot be easily addressed within a reasonable period of time and in a sustainable way. The Symposium therefore recommends that those lessons learned and best practices to resolve SSCs and improve the EI level be shared with all States associated with SSCs or low EI. At the same time, those States which successfully cleared out of SSCs and improved their EI level be able to provide assistance to those in need of assistance. To that end, ICAO should also play an important role in:

- a) disseminating the relevant information to existing SSC States or States with low EI;
- b) providing continued assistance in accordance with established ICAO Plans of Action to existing SSC States or States with low EI; and
- c) matching those States in need of assistance with those States in a position to provide support to the former States to resolve their significant safety issues.

3.7 The preliminary outcomes of Session 3 are presented in the Attachment.

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ATTACHMENT PRELIMINARY OUTCOMES

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
3.1	Disseminating lessons-learned to States with SSCs and/or low EI and matching donors for them	Resolution of SSCs and major safety deficiencies Strengthening of oversight activities	Technical and financial assistance	N/A	Voluntary contribution from donor States and partners	ICAO, AFCAC and other Partners States
3.2	Implementation of ICAO Plans of Action	Resolution of SSCs and major safety deficiencies	Assistance through AFI Plan	N/A	Continued direct assistance to States (ROST missions and training)	ICAO/AFCAC

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¹ The topic should be linked to:

- i) Assistance to the States in the establishment or strengthening of State safety oversight system, an RSOO or RAIO;
- ii) Assistance to States in resolving identified deficiencies within a reasonable time frame, including the implementation of ICAO Plans of Action;
- iii) Enhancement of aviation safety culture of African aviation service providers; or
- iv) Programme of activities under the AFI Plan 2014.

AFRICA-INDIAN OCEAN (AFI) AVIATION SAFETY SYMPOSIUM

Dakar, Senegal, 27 to 28 May 2014

SESSION 4

What are the main challenges and areas of opportunity at the regional level?



4 **SESSION 4: WHAT ARE THE MAIN CHALLENGES AND AREAS OF OPPORTUNITY AT THE REGIONAL LEVEL?**

4.1 Mr. Mam Sait Jallow, Regional Director, ICAO Western and Central African (WACAF) Office, in his capacity as the Moderator, introduced the panellists of the Session and gave an overall outline of Session 4. He highlighted the three areas of intervention namely, Training, Regional Safety Oversight Organization and Air Navigation Services in the AFI Region.

4.2 **ITEM A) TRAINING**

4.2.1 The first area of intervention related to Training and Human Resource Development issues for Africa. Captain Mostafa Hoummady, Head of the Global Aviation Training (GAT) Office at ICAO Headquarters, presented the Symposium with detailed human resource development strategies including the need to conduct a training-need analysis as a first step towards the identification of training shortfalls and gaps in the qualification of aviation personnel. The presentation is available at www.icao.int/Meetings/AFIsymposium2014/Documents/Session%204-a-1%20-%20ICAO%20-%20Training%20and%20Human%20Resources%20Development%20issues%20for%20Africa.pdf

4.2.1.1 He informed the Symposium that there is a demonstrable need for the establishment of Human Resource Development and Planning by African States as well as by corporate organizations operating in the field of civil aviation. He further informed the Symposium about the many efforts by ICAO to identify and address the issue of development of human resource capacity in Africa. These efforts, he continued, included the ICAO USOAP and the recent Global Survey. The USOAP has revealed that availability of qualified inspectors and State employees to manage civil aviation safety oversight is fundamental to the establishment of sustainable safety oversight systems in Africa. In the same vein, the global survey further revealed that Africa is one of the regions facing a huge demand for key aviation professions such as pilots and aircraft maintenance engineers, and that current training capacity is insufficient to compensate the gap between the projected growth and the available personnel.

4.2.1.2 It was pointed out that implementation of Human Resource Development Strategies by African States and corporate industry in aviation should therefore direct future training and career development of aviation professionals to better respond to the continent's needs.

4.2.1.3 The challenges in implementing human resource planning in Africa were identified to be related to the following factors:

- a) The positioning and the contribution of the aviation sector in the national economy is not identified by most African countries;
- b) Competency-based recruitment and training is not used due to lack of identification of standard qualifications and competencies for various aviation-related jobs and the job descriptions are very generic in most cases;
- c) Training requirements and plans are not established and implemented by corporate organizations and training is not provided on a basis of training-needs analysis and a goal of building and maintaining specific competencies; and



- d) Talent Management Strategies are not used to enhance the attractiveness of the aviation sector.

4.2.1.4 He concluded that African States should encourage corporate organizations operating in the aviation sector and civil aviation authorities to implement human resource planning models using competency-based management to support the integration of human resource planning with business planning.

4.2.2 Mr. Sadamba Tchagbele, presented his views as President, Association of African Aviation Training Organizations (AATO).

4.2.2.1 Mr. Tchagbele reiterated that training has continued to be the best management tool for ensuring the strategic health and sustainability of a modern enterprise. He informed the Symposium on recent initiatives in aviation training in Africa, notably the AFI Plan initiative on establishment of the AATO which has endowed the continent with the first such Association ever created throughout the world.

4.2.2.2 He informed the Symposium that during the establishment of AATO, it was revealed that there was a lack of harmonization of training at the continental level. In addition to inputs from AATO, he challenged the Symposium to consider the use of ASECNA experience with regard to the Organization's training policy objectives, training programmes and the overall contribution towards achieving harmonized practices in its training institutions that are all members of the TRAINAIR *Plus* network.

4.2.2.3 He concluded by sharing the vision of AATO which is "to create safer African skies through high quality standardized aviation training", which is in agreement with the objectives of the AFI Aviation Safety Symposium.

4.2.2.4 In conclusion, the following recommendations were presented for consideration by the Symposium:

- a) encourage the establishment of Regional Centers of Excellence in a coordinated manner; and
- b) support AATO activities.

4.2.3 Mr. Aziz Boulmane, the Alternate Representative of Morocco on the ICAO Council provided his views on the inspector training activities in Africa.

4.2.3.1 According to Mr. Boulmane, the ICAO USOAP results have revealed that, globally, there exists a gap between required and actual competencies in addition to the lack of adequate training policies, plans and programmes.

4.2.3.2 He outlined the required profile of safety oversight personnel and made a proposal on the methodological process and remedial plan of actions to address the State shortcomings in the area of training and competency of personnel. The list of the proposed actions is reproduced as follows:

- a) to carry out a root cause analysis of the problem;
- b) identify the targeted competencies;
- c) establish or improve (if any) policies in training matters as management tool;
- d) carry out a gap analysis between the required and the actual status;
- e) determine and evaluate training needs;
- f) analyze training qualitative and quantitative objectives and deliverables in relation to safety standards and functions;
- g) develop training programmes in terms of courses, activities, syllabus and duration;
- h) implement a training plan with regard to different categories (ab initio, recurrent, specialized, on-job training); and
- i) keep training records and evaluate the impact on safety oversight performance.

4.2.3.3 He concluded that the establishment of the above process and activities would require a sound budgetary allocation and a formal designation of a dedicated training manager to be responsible for the development of the training concept and the management of human resources.

4.3 **ITEM B) REGIONAL SAFETY OVERSIGHT ORGANIZATIONS**

4.3.1 Mrs. Irène Gnassou Seka, Director Air Transport and Project Coordinator, West African Economic Monetary Union (UEMOA) Commission informed the Symposium about the issue of multiple memberships in Regional Safety Oversight Organizations (RSOOs).

4.3.1.1 Mrs. Seka gave a brief background on the establishment and objectives of COSCAP-UEMOA Project. According to Mrs. Seka, the COSCAP-UEMOA Project was established in 2006 with the aim of providing safety oversight assistance to the eight UEMOA Member States plus Mauritania and to serve as a pilot project in the transition towards the establishment of a Regional Safety Oversight Organization (RSOO).

4.3.1.2 She highlighted the details of the institutional processes that had to be undergone in order to establish the RSOO which requires the active participation of States in ministerial meetings and Expert workshops to review and adopt the necessary regulatory frameworks dealing with legal, organizational and financial sustainability of the RSOO. She recognized the support of ICAO and the development partners including EASA and U.S. DOT in this endeavour.

4.3.1.3 The Symposium was informed that the transition process on the establishment of Community Civil Aviation Safety and Security Oversight Agency (ACSAC) as an autonomous specialized institution allowed under the Treaty establishing UEMOA was initiated in 2007 and is now in its final stage as it was signed by a number of Member States at the Conference of Heads of States held in Dakar in October 2013. The Symposium was also made aware of the funding scheme of the ACSAC that will include a subsidy from UEMOA and a passenger levy that has already been approved.

4.3.1.4 It was pointed out that the objectives of ACSAC will embrace common policies on safety and security, harmonized regulations and implementation of safety oversight tools, reduction in accident rate and continuous improvement of EI of the ICAO SARPs.

4.3.1.5 The attention of the Symposium was drawn to the proliferation of RSOOs in the West and Central African region through the numerous regional initiatives with the possibility of duplication of efforts. To this end, it was considered crucial that there is effective coordination with a proposal for an agreement to be concluded between the many initiatives for the purpose of avoiding duplication of efforts by the different regional safety initiatives.

4.3.1.6 In conclusion, she recommended that the Symposium encourages donor agencies and development partners to support the establishment as well as the effective and fast operationalization of regional initiatives.

4.3.2 Wg. Cdr (rtd) Emmanuel Akatue, Executive Director, Banjul Accord Group Aviation Safety Oversight Organisation (BAGASOO) then took the floor to inform participants about the transition from COSCAP to RSOO and its continued sustainability.

4.3.2.1 According to Wg. Cdr (rtd) Akatue, the transition to an RSOO would normally be preceded by a process of introspection in the form of a gap analysis to determine that the objectives of the COSCAP have been satisfactorily met and that the project is ready to be institutionalized through the creation of an RSOO. He enumerated the steps towards the creation of an RSOO, including the development of a business plan following completion of a feasibility study to determine its sustainability. He pointed out that the study should address issues relating to organogram, personnel recruitment and funding mechanism with the final step resulting in the signing of an agreement or a treaty on the establishment of the RSOO.

4.3.2.2 It was highlighted that the functions of an RSOO would normally be an expansion of those of the existing COSCAP. It was however noted that an RSOO has an international legal personality with a governing body, a Board of Directors that normally comprises of Directors General of Civil Aviation of the Member States and the Head of the RSOO.

4.3.2.3 It was further highlighted that the feasibility study should adequately address the issues of location of the Secretariat or the Headquarters of the RSOO, taking into account factors such as host State obligations, security, cost of living, ease of travel, cultural challenges, availability of stable electricity supply, internet services, etc. These factors are considered extremely important in view of the fact that they have a direct bearing on the ability of the RSOO to attract, recruit and retain personnel as well as on the direct operating cost of the RSOO.

4.3.2.4 The Symposium was advised that the nature of the challenges of a new RSOO would determine its sustainability and these challenges are generally related to administrative and financial sustainability, and the availability and retention of competent personnel.

4.3.2.5 It was pointed out that recruitment of qualified technical personnel could be challenging in light of the lack of standardized requirements for qualification and experience amongst the Member States, lack of certainty in job security with the RSOO and lack of competitive remuneration packages.

4.3.2.6 The issue of financial sustainability was reported as the greatest challenge as it was noted that although contributions on a pro rata basis towards funding the COSCAP may have been feasible, RSOOs may have larger projected staffing requirements, increased activities requiring significantly higher budget with corresponding increase in contributions by Member States. The Symposium was presented with the idea of imposing a levy as a more sustainable means of funding and as recommended in the World Bank study for PASO (Pacific Aviation Safety Office) and the IATA study for the yet to be established UEMOA RSOO (ACSAC).

4.3.2.7 In conclusion, the following recommendations were presented for consideration by the Symposium:

- a) Competitive remuneration with the goal of attracting and retaining competent and qualified technical staff;
- b) To establish RSOOs as agencies of wider regional bodies, or if separately established RSOOs with agreements with such regional bodies that allow for collaboration and financial support from regional bodies are more sustainable;
- c) Amalgamation of existing RSOOs to reduce overheads and expand the number of contributors; and
- d) Grants from donor agencies, such as the World Bank, AfDB, the U.S. DOT, and the EU/EASA, etc; have typically provided support for capacity building.

4.3.3 Mr. Barry Kashambo, Executive Director, Civil Aviation Safety and Security Oversight Agency (CASSOA) provided his views regarding the delegation of functions to an RSOO.

4.3.3.1 It was reiterated that delegation of functions to RSOOs refers to the practice where a Contracting State or a group of Contracting States in a region or sub-region, delegate some or part of their obligatory functions for the purpose of having improved compliance to ICAO SARPs, increasing the EI of the eight critical elements of an oversight system, and ensuring that the minimum operating standards, procedures and practices as required by the Convention on International Civil Aviation are achieved.

4.3.3.2 The attention of the Symposium was drawn to the functions that can be readily delegated to an RSOO purposely to achieve a common goal of enhanced compliance and strengthening of oversight systems. These functions include harmonisation of regulations and technical guidance material, certification and surveillance activities, training of technical personnel, process of personnel licensing, sharing of technical information and/or the operationalization of technical experts sharing scheme.



4.4 ITEM C) AIR NAVIGATION SERVICES IN THE AFI REGION

4.4.1 The status on the provision of air navigation services in the AFI Region was addressed by Mrs. Claire Josette Obame Edou, Director of Operations, Agency for Air Navigation Safety in Africa and Madagascar (ASECNA).

4.4.2 Mrs. Edou presented the status of Air Navigation Services (ANS) with emphasis on those provided by ASECNA. She also highlighted the challenges in view of the projected traffic growth and stakeholders concerns in relation to traffic congestion, airspace safety and technologic CNS/ATM development.

4.4.2.1 The Symposium was provided with clarification on the different statutory types of ANSPs, the complexity of airspace structure in the AFI Region, the safety performance in terms of accidents and incidents and the impact of armed conflicts on airspace utilization.

4.4.2.2 She further highlighted the main challenges in the different areas as provided below:

- a) AIM: Transition from AIS to AIM;
- b) CNS:
 - 1) Communication: C band protection and CPDLC implementation to cover larger regions
 - 2) Navigation: PBN implementation, WGS84 high cost campaign, GNSS signal vulnerability
 - 3) Surveillance: accrued monitoring, emergency cases
- c) ATM: civil and military coordination, FLP non availability;
- d) MET: wind shear and previsions reliability; and
- e) SAR: MOU signature between AFI States and better equipped countries.

4.4.2.3 In conclusion, the AFI Region is facing challenges in navigation safety, in extending its airspace capacity, and in improving the efficiency of flights for the development of a strong aviation system, both economically viable and environment sensible. With an increasing military presence in the airspace of the region, the coordination should be improved and the enforcement enhanced.

4.4.3 Mr. Frederic Legrand, AFI Flight Procedures Programme Manager presented a strategy for moving forward with a sustainable African capability for PBN implementation, including instrument flight procedure design and deployment, through the establishment of AFPP. He indicated that African States were invited to become Participating States by signing the Programme Document (ProDoc).

4.4.3.1 Mr Legrand asked States to support this important initiative by signing the ProDoc and providing adequate resources. He also pointed out that donors and sponsors can also contribute to this programme by providing funds, in-kind contributions and/or secondment of personnel.

4.5 The preliminary outcomes of Session 4 are presented in the Attachment.

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ATTACHMENT PRELIMINARY OUTCOMES

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
4.a.1	Human Resources Development	Implementation of Human Resources Development Strategies and plans by States	ICAO support (AFI Plan) AU support (African Civil Aviation Policy)	31 December 2015	Training for HR Managers Training for Subject Matter Experts Standardized competencies Harmonized training Use of competency-based training	ICAO
4.a.2		Development of Training programmes /plans	ICAO Support States	31 May 2015	Develop a training programme on the basis of a sound training policy.	ICAO States – Directors General of CAAs
4.b.1	Sustainability of RSOOs	MOUs with Regional Economic Communities (RECs) for institutional and financial support.	ICAO support	31st December 2014	Drafting the MOU; Meeting with Heads of the RECs; Signature of MOUs.	RSOO Board of Directors Heads of RECs, President of ICAO and AFCAC SG.

¹ The topic should be linked to:

- i) Assistance to the States in the establishment or strengthening of State safety oversight system, an RSOO or RAIO;
- ii) Assistance to States in resolving identified deficiencies within a reasonable time frame, including the implementation of ICAO Plans of Action;
- iii) Enhancement of aviation safety culture of African aviation service providers; or
- iv) Programme of activities under the AFI Plan 2014.

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
4.b.2		Implementation of a Levy	ICAO support AFCAC	31st Dec 2014	Agreement by member states; Appointment of collection agencies; Implementation	RSOO Board of Directors , Council of Ministers and President of ICAO
4.b.3		Amalgamation and integration of RSOOs into larger entities	RECs AFCAC ICAO	31 May 2016	Evaluation of optimum number and configuration of RSOOs Development of an implementation plan/strategy.	RSOO Board of Directors, REC Presidents, ICAO and AFCAC SG.
4.b.4	Delegating functions to RSOOs	Strengthened safety and security oversight systems and capabilities. Formal letters of Agreement MOU between RSOOs and States on delegated functions.	Sustainable and adequate funding; Sufficient and qualified personnel Political will and management commitment.	Continuous	Promote and establish strong RSOOs with adequate and sustainable funding mechanisms; Establishment of strong RSOOs with adequate and sustainable funding mechanisms; Pooling of resources; Clear Identification of functions to be delegated to RSOOs.	Ministers responsible for Civil Aviation; Directors General of CAAs; Heads of Regional Economic Communities; CEOs of RSOOs;

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
4.c.1	Air Navigation Services separation of functions between Regulator and Operator	Clear separation of functions between Regulators and service providers	ICAO Support	31 December, 2015	Review Legislation and Mandate of aviation entities; Identify and provide adequate resources for aviation entities.	Ministers responsible for Civil Aviation; Directors General of CAAs.
4.c.2		Enhanced implementation of PBN through the African FPP	ICAO Support	31 December 2014	Adherence of States to African FPP	ICAO ASECNA States
4.c.3		Address the problem of missing operational messages and data (Flight plans, OPMET etc.).	ICAO Support	31 December 2014	Address/implement relevant APIRG Conclusions	ICAO ASECNA States
4.c.4		Work progressively for cooperation between ANSPs and the integration of airspaces for seamless air navigation services.	ICAO Support	31 December, 2014	Programme of civil/military coordination workshops (worldwide and regional) Conclusion of Letters of Agreement (LOA) between States for SAR and development and testing of contingency plans.	Ministers responsible for Civil Aviation; Directors General of CAAs.

AFRICA-INDIAN OCEAN (AFI) AVIATION SAFETY SYMPOSIUM

Dakar, Senegal, 27 to 28 May 2014

SESSION 5

What are the main challenges and areas of opportunity for States?



5 **SESSION 5: WHAT ARE THE MAIN CHALLENGES AND AREAS OF OPPORTUNITY FOR STATES?**

5.1 Mr. Meshesha M. Belayneh, ICAO Regional Director, Eastern and Southern African (ESAF) Regional Office, made a general introduction of the issues to be discussed in Session 5 of the Symposium, namely establishment and strengthening of CAA, issuance of air operator certificates, aerodrome certification, and evolving from safety oversight to safety management. He underscored the importance of the certification process in relation to the SSCs identified in the framework of the ICAO Universal Safety Oversight Audit Programme (USOAP); issues that are addressed by the Abuja Safety Targets and which are aligned with the ICAO Global Aviation Safety Plan (GASP).

5.1.1 Mr. Belayneh then invited Mr. Matthew Baldwin, Director, Aviation and International Transport Affairs, Directorate-General for Mobility of the European Commission, and Mr. Haydar Yalçın, President of the Provisional Council of EUROCONTROL, Deputy Director General of the Turkish Directorate-General of Civil Aviation, to address the Symposium.

5.1.1.1 Mr. Baldwin stressed the importance of aviation to Africa by supporting economic growth and tourism, as well as the growing political intolerance to aviation safety deficiencies in the Region. He indicated the EU's determination to work with Africa and ICAO towards the removal of African States from the EU Safety List based on safety considerations. He highlighted the shared commitment to improving safety in accordance with Assembly Resolution A38-5 on Regional cooperation and assistance to resolve safety deficiencies, establishing priorities and setting measurable targets.

5.1.2 Mr. Yalçın highlighted that safety is of the utmost importance to air transport, and the fact that Africa has safety concerns and needs to develop aviation safety performance strategies to support the progress of its Continent. He indicated that the African Union is maturing as regards its understanding of, and commitment to, safety improvement. Therefore, he offered the commitment of the EUROCONTROL Agency and that of its forty Member States to assist its African counterparts through the AFI Plan in bringing – and keeping – its safety performance in balance, and to deploy a safer sky for all its users.

5.1.3 Following these introductory addresses, Mr. Belayneh invited the Speakers to deliver their respective presentations on the main challenges and areas of opportunity for African States.

5.2 On the establishment and strengthening of the CAA, Mrs. Joyce Thompson, Director Legal, International Relations and Corporate Communications of the Ghana Civil Aviation Authority (GCAA), highlighted the fact that stronger CAAs would be established in the AFI-Region to withstand the test of the eight critical elements of a State safety oversight system.

5.3 On the air operators certification and maintenance of an aircraft registry, Captain Joe Mutungi, Director, Aviation Safety and Security Regulations of the Kenyan Civil Aviation Authority, presented the five phases of the air operators' certification process. He highlighted the challenges faced by CAAs in their efforts to implement safety infrastructure, develop inspector capacity, retain qualified and experience inspectors, and ensure that the information contained in their aircraft registry is accurate and up to date.



5.4 On the aerodrome certification, Mr. Alberto Silva, Director, Air Navigation, Civil Aviation Authority of Cabo Verde, presented the aerodrome five-phased certification process, shared the experience of Cabo Verde in this area and promoted shared commitment and close coordination between CAAs and airport operators, as well as an exchange of information among States.

5.5 On the evolving from safety oversight into safety management, Mr. Gabriel Bestbier, General Manager, Air Safety Infrastructure of the South African Civil Aviation Authority presented the Global Aviation Safety Plan objectives and priorities, with emphasis on the need to conduct gap analyses and develop action plans to meet globally and regionally agreed targets.

5.6 **Summary of discussions**

5.6.1 The Symposium recognized the significant contribution of existing RSOOs in improving safety oversight capacity in several African States, and encouraged the States to continue to support and cooperate with these RSOOs.

5.6.2 States adopting foreign regulations were advised to ensure that these regulations are suitable and remain relevant to their environment.

5.6.3 The Symposium discussed at large the issue of the high turnaround of DGCA's in many States, as well as the issue of retention of inspectors in States. Following the discussions, the Symposium recognized the need for a roadmap for capacity building and human resources development plans in the region, as well as States' commitment to a set of minimum requirements for an effective safety oversight system.

5.6.4 The participants recalled the importance of the work of ICAO in the conduct of gap analyses performed in the AFI Region in the implementation of State Safety Programmes (SSPs) and safety management systems (SMS), and the provision of related training to promote safety culture and facilitate implementation by States and the industry. Participants therefore recommended that ICAO pursue these activities which were discontinued.

5.6.5 The Symposium noted a suggestion for the development of a roadmap to support the implementation of the revised GASP at a global level.

5.6.6 The Symposium discussed the importance of establishing autonomous civil aviation authorities with sufficient resources, and duly empowered to conduct effective safety oversight of the aviation sector in African States. The Symposium agreed that there was a need for States' commitment to implement a minimum set of requirements to ensure that the conditions for an effective safety oversight system are in place.

5.7 Following the presentations, the Symposium appreciated the significant contribution of the Regional Safety Oversight Organizations to improving safety in the AFI Region.

5.7.1 The main outcomes of the Symposium's discussions held under its Session 5 to address the main challenges and take advantage of the areas of opportunity for States are summarized as follows:



- a) There is a need to establish autonomous CAAs capable of regulating the industry, with sufficient and appropriate human, technical and financial resources, or an active participation in RSOOs is to be led by States and CAAs;
- b) Air operators' certification and maintenance of an aircraft registry, consistent with international requirements, should be supported by several actions to be implemented by CAAs and Air Operator Partners. The need for States to share information on AOC holders through the AOC database in order to streamline the operations of these providers was also recognized;
- c) To achieve aerodrome certification, CAAs should develop and promulgate enabling consistent regulations, and conduct certification and oversight activities consistent with international requirements. Airport operators should also support States in the analysis of safety risks and development of aeronautical studies; and
- d) In order to achieve an effective evolution from safety oversight to safety management, CAAs, Aviation Safety Partners, the industry and ICAO should implement SSPs and SMS once they achieved an EI of 60 per cent, by developing SSP/SMS implementation plans and assistance programmes, promoting safety culture, collaborating with the RSOOs or delegating safety oversight functions. In addition, ICAO was called to develop a Roadmap for the revised Global Aviation Safety Plan in order to facilitate its implementation among all sectors of civil aviation.

5.8

The preliminary outcomes of Session 5 are presented in the Attachment.

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ATTACHMENT PRELIMINARY OUTCOMES

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
5.1.1	Establishment and strengthening of CAA	Autonomous CAA capable of regulating industry, with sufficient resources (qualified personnel, financial, technical) Active participation in RSOOs	Yes	Abuja safety targets (2013)	Implement Critical Elements Develop appropriate legislation and regulations based on ICAO model regulations Allocate sufficient resources to CAA Develop human resource plan for CAA personnel	States/CAAs
5.1.2	Establishment and strengthening of CAA	Training programmes developed and implemented for CAA personnel	Yes	Abuja safety targets (2013)	Establishment of Training Academy Develop and implement proper training programmes & plans for CAA personnel	CAAs Industry

¹ The topic should be linked to:

- i) Assistance to the States in the establishment or strengthening of State safety oversight system, an RSOO or RAIO;
- ii) Assistance to States in resolving identified deficiencies within a reasonable time frame, including the implementation of ICAO Plans of Action;
- iii) Enhancement of aviation safety culture of African aviation service providers; or
- iv) Programme of activities under the AFI Plan 2014.

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
5.1.3	Establishment and strengthening of CAA	Autonomous CAA capable of regulating industry, with sufficient resources (qualified personnel, financial, technical)	Yes	Abuja safety targets (2013)	<p>Implement Critical Elements</p> <p>Develop appropriate legislation and regulations based on ICAO model regulations</p> <p>Allocate sufficient resources to CAA</p> <p>Develop human resource plan for CAA personnel</p>	<p>States/CAAs</p> <p>CAAs States</p> <p>States/CAAs</p> <p>States/CAAs</p>
5.1.4		Delegation of responsibility (where justified)	Yes	Abuja safety targets (2015)	Use of Article 83 <i>bis</i> to perform safety oversight functions	CAAs ICAO
5.2.1	Air operators certification and maintenance of an aircraft registry	Air Operators certified and aircraft register maintained	Yes	Abuja safety targets (2013)	<p>Establish primary aviation legislation</p> <p>Promulgate enabling regulations covering all Annexes</p> <p>Clearly define the relationship between States and operators</p>	<p>CAAs Air Operators Partners CAAs CAAs</p>
5.2.2	Air operators certification	Air Operators certified	Yes	Abuja safety targets (2013)	<p>Develop of Guidance Material</p> <p>Conduct air operator certification activities</p>	<p>CAAs Air Operators Partners CAAs</p>

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
5.2.3	Maintenance of an aircraft registry	Aircraft register maintained	Yes	Abuja safety targets (2015)	Establish procedures for aircraft registry maintenance	CAAs Air Operators
5.2.4	Air operators certification and maintenance of an aircraft registry	Air Operators certified and aircraft register maintained	Yes	Abuja safety targets (2015)	Conduct safety oversight activities	CAAs
5.2.5	Air operators certification and maintenance of an aircraft registry	Air Operators certified and aircraft register maintained	Yes	Abuja safety targets (2015)	Develop a human resource development plan for CAA personnel	CAAs
5.3.1	Aerodrome Certification	International aerodromes certified	Yes	Abuja safety targets (2015)	Develop and promulgate enabling regulations Conduct aerodrome certification activities Conduct safety oversight activities	CAAs Airport Operators CAAs CAAs
5.3.2	Aerodrome Certification	Sharing of information related to a certification at national/international level	Yes	Abuja safety targets (2015)		CAAs
5.3.3	Aerodrome Certification	Qualified and duly trained personnel	Yes	Abuja safety targets (2015)	Conduct of Joint Training among Stakeholders	CAAs Industry
5.3.4	Aerodrome Certification	Zoning	Yes	Abuja safety targets (2015)	Conduct safety risk analysis and aeronautical studies	CAAs Airport Operators

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
5.4.1	Evolving from Safety Oversight to Safety Management	State Safety Programmes Safety & Management Systems	Yes	Abuja safety targets (2015)	Promote safety culture Conduct Gap Analyses Develop SSP/SMS Implementation Plans Implement SSP/SMS Conduct SSP/SMS training	CAAs ICAO Industry CAAs ICAO CAAs Industry CAAs Industry
5.4.2	Evolving from Safety Oversight to Safety Management	Assistance programmes	Yes	TBD	Develop assistance programmes	CAAs ICAO Partners
5.4.3	Evolving from Safety Oversight to Safety Management	Active participation in RSOOs	Yes	Abuja safety targets (2013)	Participate in, and collaborate with RSOOs	CAAs RSOOs
5.4.5	Evolving from Safety Oversight to Safety Management	Global Aviation Safety Roadmap	Yes	TBD	Developing a Roadmap to facilitate GASP implementation	ICAO

AFRICA-INDIAN OCEAN (AFI) AVIATION SAFETY SYMPOSIUM

Dakar, Senegal, 27 to 28 May 2014

SESSION 6

How can the industry contribute to the improvement of aviation safety and air navigation performance in Africa?

6 **SESSION 6: HOW CAN THE INDUSTRY CONTRIBUTE TO THE IMPROVEMENT OF AVIATION SAFETY AND AIR NAVIGATION PERFORMANCE IN AFRICA?**

6.1 Captain Kevin Hiatt, Senior Vice President Safety and Flight Operations, International Air Transport Association (IATA), shared the industry involvement in safety implementation activities and working with States and regulators in achieving the Abuja safety targets.

6.1.1 He further introduced the subject of this Session “How can the industry contribute further to the improvement of aviation safety and air navigation performance in Africa”, and introduced the esteemed speakers:

- a) Mr. Jean-Paul Nyirubutama, Deputy Chief Executive Officer (CEO) & Chief Operating Officer (COO), RwandAir;
- b) Ms. Awa Diagne, Director of Operations, Agency of Senegal Airports (ADS);
- c) Mr. Florent Lucas, Airbus ProSky, Airspace Design and Airline Services, PBN Project manager;
- d) Mr. Chamsou Andjorin, Director for Africa and Middle East, Aviation Safety, Boeing; and
- e) Mr. Luc Tytgat, Director Pan-European Single Sky, EUROCONTROL.

6.1.2 Apologies were sent by Mr. Tewolde GebreMariam, CEO of Ethiopian Airlines, for not being able to attend. His presentation was handed over to the ICAO WACAF Regional Office.

6.2 The presentation provided by Mr. GebreMariam sharing the airline’s experience on the impact of Operational Data Collection as part of implementing SMS was summarized by Mr. Gaoussou Konate, ICAO Deputy Director, WACAF Regional Office.

6.2.1 In 2009, IATA launched the Implementation Program for Safe Operations in Africa (IPSOA), aimed to make better use of flight data and develop safety data management and safety culture (non-punitive reporting). This programme has been expanded beyond Africa and Ethiopian Airlines, which was part of the programme since its inception was invited to share their lessons learned and value in establishing operational data collection.

6.2.2 As background, Mr. Konate recalled and provided the basic functionality of the Flight Data Monitoring System (FDM).

6.2.2.1 By implementing the FDM programme, the management’s core objective is to facilitate the free flow of safety information and control potential hazards that exist in the system including:

- a) The acquisition, measurement and analysis of flight data in order to identify, establish probable causes for, and rectify adverse trends and deviations and safety;
- b) The capability to continuously monitor flight operations by tracking trends and investigating the circumstances relating to minor incidents; and
- c) The detection of flaws before they lead to major incidents, and to develop preventative and/or corrective actions such as increased training or changes in in-flight operating procedures.



6.2.2.2 The FDM process provides a means for the continual monitoring and improvement of the safety of flight operations and performances.

6.2.3 Mr. Konate indicated the outcomes of Ethiopian Airlines using the FDM:

- a) assist in developing new company procedures for different fleet;
- b) manage the risk associated with the number of unstabilized approaches at Addis Ababa Bole International Airport;
- c) allow categorizing different airfields in Categories A, B & C airports;
- d) generally assist in making an informed decision based on flight performance;
- e) permit to integrate Threat and Error management courses to crew performance in training;
- f) monitor individual pilots fleet performance; and
- g) have a flight safety log database.

6.2.4 As safety is one of the core value at Ethiopian Airlines, the presentation highlighted the commitment of its management to allocate appropriate resources and to build a Safety Culture that considers safety as a fundamental priority in operations. The same commitment applies to setting up and operating hazard identification and risk management processes, including the hazard reporting system, in order to eliminate or mitigate the safety risks of the consequences of hazards resulting from operations or activities to a point which is as low as reasonably practicable. This would achieve continuous improvement and a high level of safety performance to develop, implement and constantly improve strategies and processes to ensure that all the aviation activity takes place at the highest level of safety performance while constantly meeting regulatory requirements.

6.2.5 In line with the above principles and safety objectives, Ethiopian Airlines established the FDM system while undergoing IOSA. The captured data permitted the analysis and mitigation of risk and as well as the correction of unstable approaches at Addis Ababa Bole International Airport, which improved operational efficiency.

6.3 Mr. Jean-Paul Nyirubutama, Deputy CEO and COO of RwandAir, shared the airline's perspective in preparing for the IOSA certification. He recalled that one of the Abuja Declaration requirement was for all African carriers to complete an IOSA certification by the end of 2015.

6.3.1 In order to support the implementation of this specific requirement, IATA has developed the IOSA Implementation Training Initiative for African Airlines (IOSA-AFI), which was offered to IOSA-eligible airlines in Africa. The initiative is a hands-on, in-company training programme in which operational staff is given practical tools to understand and implement IOSA Standards and Recommended Practices (ISARPs) under a sound, corporate IOSA project.

6.3.2 Back in 2012, the RwandAir management took the decision to undergo the IOSA certification. The airline moved away from their prior wet-lease model, and the carrier fleet and routes had progressively extended starting from 2009. Internal IOSA preparation started mid-2012 by soliciting training and advisory services from AFRAA, IATA and consulting firms.



6.3.3 In 2013, RwandAir was privileged to be selected by IATA alongside other airlines to undergo the IOSA Implementation Training Initiative, which was implemented in three hands-on workshops. The workshops offered by IATA were based on the identification of IOSA gaps, leading to a concrete action plan to be implemented by RwandAir's IOSA Task Force, with clear accountabilities, timelines, measurements of progress, and deliverables.

6.3.4 Mr. Nyirubutama listed the lessons learned and the contributors factors of the success history:

- a) management commitment to achieve compliance and best practices;
- b) management commitment to support and provide the required resources to accomplish the IOSA project;
- c) committed IOSA project team selection;
- d) creative training programmes by IATA for improving aviation safety for AFI;
 - 1) IATA's contribution to IOSA preparation was a game changer as a young and hitherto inexperienced team morphed into a performing and well-prepared team ready to undergo the audit and to improve operational standards;
- e) invaluable support and commitment in improving aviation safety by IATA and AFRAA; and
- f) the need for airlines to exchange and share the experience of achieving IOSA.

6.3.5 RwandAir indicated that their confidence and building capacity improved, involving 90 per cent of local internal expertise to accomplish the IOSA certification.

6.3.6 Mr. Nyirubutama concluded by inviting fellow new operators to request and secure technical assistance and to seek for cooperation with a clear objective of building internal capacity to sustain safety continuous improvement.

6.3.7 Regulators were also encouraged to exchange views on how to implement IOSA as a mandatory requirement similar to Brazil, Egypt, Madagascar, Turkey and other states to ensure that the region meets the relevant Abuja safety targets.

6.4 Mrs. Awa Diagne, Director of Operations, Agency of Senegal Airports (ADS), was invited to share ADS' endeavours to establish Runway Safety Teams and Airport Certification.

6.4.1 As introduction, Captain Kevin Hiatt indicated that while there is a downward trend in aviation accidents overall, the trend for runway excursions has remained relatively unchanged. From 2009 to 2013, 58 per cent of all worldwide accidents occurred in the runway environment. The most frequent type of accident is runway excursion, representing 23 per cent of all accidents over the period, according to the 2013 IATA Safety Report. Improving runway safety is a key focus of the industry's strategy to reduce operational risk. Furthermore, the Abuja safety targets are to reduce runway related accidents and serious incidents by 50 per cent by the end of 2015. In addition, Abuja Declaration calls for all international airports to be certified by end of 2015.



6.4.2 Mrs. Diagne recalled a formal decision taken by the ADS Director General in 2011, expressing the involvement and commitment of airport authorities to address the certification of the Léopold Sédar Senghor International Airport by establishing a process and designating a Safety Committee meeting once a month. Along with a campaign to sensitize aerodrome stakeholders through brochures and catalogues, a data collection and analysis was carried out in 2013 to provide figures representing the relative impact of different hazards on traffic incidents and runway safety issues.

6.4.3 In order to address the safety findings, Senegal Authorities decided to establish Runway Safety Teams involving the CAA, Senegal's National Civil Aviation and Meteorological Agency (ANACIM), the AGA and ANS service provider ASECNA, the air operators, and the handling societies. To this end, ADS will take advantage of the Runway Safety Support GO Teams project in due course at the RASG-AFI.

6.4.4 To conclude, Mrs. Diagne invited the Symposium to endorse the AFI RASG RST and airport authorities to accept the RST GO Teams to be deployed in the framework of RASG-AFI activities, and commit them to provide resources for the successful implementation of RST in order to help in achieving the Abuja safety target related to runway safety hazards.

6.5 Captain Kevin Hiatt invited Mr. Florent Lucas, Airbus ProSky, Airspace Design and Airline Services, PBN Project Manager, to share how manufacturers could assist in addressing Controlled Flight Into Terrain (CFIT) accidents.

6.5.1 As introduction, Captain Kevin Hiatt reflected that most CFIT accidents occur in the approach and landing phases of the flight and are often associated with lack of precision approaches. In the period from 2009 to 2013, data from the IATA Global Aviation Data Management (GADM) programme shows that 52 per cent of CFIT accidents involved the lack of precision approaches. There is a correlation between the lack of Instrument Landing Systems (ILSs) or state-of-the-art approach procedures - such as Performance-Based Navigation (PBN) - and CFIT accidents. Abuja Declaration target is to reduce CFIT related accidents and serious incidents by 50 per cent by the end of December 2015.

6.5.2 Indicating that Airbus made safety their priority, Mr. Lucas listed some mitigating measures to address CFIT accidents while offering training and competency building sponsorship to CAA, the industry, ATS and airports with traffic concerns:

- a) Go around training;
- b) SOP adherence;
- c) Airbus ProSky system; and
- d) PBN approach (in most cases lack of PBN is associated with CFIT and Runway Excursions).

6.5.3 Mitigation Means: Training

- a) Go-around can be decided until the selection of the reversers;
 - 1) Reasons for go-around decision could be the destabilization of the approach;
- b) Loss of visual references;
 - 1) Once go-around is initiated, it must be completed.



6.5.4 Mitigation Means: SOP adherence flight operations best practices

- a) Systematic Landing Performance computation in approach;
- b) Introduction of In-Flight landing distances contributes to reduction of runway excursions;
- c) In-Flight Landing Distances are EASA approved since mid-July 2012;
 - 1) From now on, the In-Flight Landing Distances are the Airbus reference to assess in flight the landing performance, with and without failure.
- d) FCOM PER-LDG-DIS DISPATCH; and
- e) QRH for OLD.

6.5.5 Mitigation Means: Aircraft systems/Runway Overrun Prevention System

- a) ROW: In case of runway overrun situation detected at landing before aircraft retardation, a dedicated red alert is triggered to encourage the pilot to go around;
- b) Automatic detection of current landing runway using terrain/airport database;
- c) Real-time monitoring and assessment of realistic landing and stopping distance with respect to current and remaining landing distance available; and
- d) ROP: In case of runway overrun situation while the aircraft has started to brake, dedicated red alerts to set/keep full pedal braking and to select/keep max reverse thrust.

6.5.5.1 Airbus ProSky will participate in African FPP activities to facilitate certification of operators for the use of PBN procedures and accelerate the implementation of BaroVNAV. Priority will be given to the high volume airports with the highest rate of unstabilized approach incidents combined with runway ends that do not have precision approach procedures.

6.5.6 Mr. Florent Lucas added that support can be on certification, procedure design, ATC training, for airlines – retrofit, OPS manual. He then gave examples of PBN expertise implementation in Turkey, Central America, China, and product support assistance carried out in Gabon, the United Republic of Tanzania among other places. Airbus also provides tools, processes and expertise for FDA. The presenter highlighted the financial issue, the importance of driving resources effectively, and to obtain government commitment, underlining that PBN is not only related to safety.

6.5.7 As a manufacturer, Airbus is committed to contribute to the overall safety improvement in relation to CFIT accident reduction in Africa through:

- a) Continuous improvement of aircraft systems;
- b) Airline training;
- c) Promotion of safe and efficient operations;
- d) Train the trainer; and
- e) Active support to ICAO Africa FPP.



6.5.7.1 Mr. Lucas informed the meeting of Airbus' assistance with workshop on operational approval next September.

6.6 Mr. Chamsou Andjorin, Director for Africa and Middle East, Aviation Safety Boeing, was invited to share how manufacturers could assist in preventing LOC-I accidents.

6.6.1 As introduction, Captain Hiatt reflected that, while few in number, Loss of Control In-flight (LOC-I) accidents are almost always catastrophic; 95 per cent of LOC-I accidents between 2009 and 2013 involved fatalities to passengers and/or crew. Over this period, 10 per cent of all accidents were categorized as LOC-I. LOC-I accidents contributed to 60 per cent of fatalities during the past five years (1,546 out of 2,585). Given this severity, LOC-I accidents represent the highest risk to aviation safety.

6.6.2 Mr. Andjorin started off with elaborating that safety is in the heart of the company, as Boeing is dependent on regulators' approvals and airlines' feedback to improve their systems. He indicated that even though relative fatality is high, the good news is that it is decreasing. More than 51 per cent is related to airplane state awareness, meaning that pilots did not have an altitude state awareness or energy state awareness. Boeing noticed that there were less occurrences in the U.S. and further analysed data to understand the reasons and to search for precursors. Even though the same worldwide precursors were present in the U.S., it did not produce the same occurrences.

6.6.3 Mr. Andjorin identified twelve themes that are common after analyzing eighteen accidents (of which nine altitude state awareness and nine energy state awareness):

- a) Lack of External Visual Reference;
- b) Flight Crew Impairment;
- c) Training;
- d) Airplane Maintenance;
- e) Safety Culture;
- f) Invalid Source Data;
- g) Distraction;
- h) System Knowledge;
- i) Crew Resource Management;
- j) Automation Confusion/Awareness;
- k) Ineffective alerting; and
- l) Inappropriate Control Actions.

6.6.4 The safety initiatives developed to address LOC-I events are categorized under:

- a) Training;
- b) SOP; and
- c) Design change.

6.6.5 Mr. Andjorin informed the Symposium of these new safety initiatives developed with Commercial Aviation Safety Team (CAST) and the FAA. He invited operators to access those initiatives and Regulators to enforce implementation and utilization of those toolkits in order to help in achieving



the safety rate reduction related to RASG-AFI Safety Support Teams objectives in support of Abuja accident rate reduction.

6.6.6 He further invited operators to implement the LOC-I toolkit which will be launched at a workshop hosted by IATA last week of November 2014 in Johannesburg.

6.7 Mr. Luc Tytgat, Director Pan-European Single Sky, EUROCONTROL, was invited to address emerging issues that could affect safety of flight. As introduction, Captain Hiatt reflected that identifying potential hazards and Emerging Safety Issues is a critical part of SMS implementation.

6.7.1 Mr. Tytgat recalled that EUROCONTROL is an Organization in charge of the safety of the European airspace and its supporting stakeholders, and the implementation of ICAO legislations, EU legislation and a regulatory framework by its Member States. The Organization is offering the use of this expertise and experience.

6.7.2 He indicated that Europe has solid experience, including through participation in ICAO USOAP audits, with autonomous regulatory oversight, which helps to understand the position of States on their civil aviation activities. They have put in place comprehensive support packages to resolve the deficiencies identified and “raise the bar” of ATM performance and safety. This is a proven approach, which contributes to achieving a consistent application of legal instruments and standards. It further supports initiatives that build on existing structures, mechanisms and programmes, as well as the exchange of good practices, lessons learnt and safety information among stakeholders.

6.7.3 Europe in particular could back the development and implementation of a powerful ATM system in Africa. The support offered by EUROCONTROL to the AFI region is considered in the context of, e.g., the SIASA Project, funded by the EU and managed by EASA, which is directly aimed at helping States meet ICAO requirements.

6.7.4 The safety status and the latent safety impact and consequences can be summarized as follows:

- a) AIS and flight management system (FMS) databases are not updated with respect to static and dynamic data for the State in question;
- b) Local / international AIS, pilots and airlines are not informed about operationally-relevant changes;
- c) Correct flight planning is not possible, and flights en-route might be rejected due to missing or incorrect information; and
- d) Incorrect database information makes correct NOTAM processing difficult or impossible. NOTAM processing and distribution will be delayed, with the result that pilots might take off without having the latest information. In a worst case scenario, this could lead to an incident or an accident.

6.7.4.1 Mr. Tytgat indicated that EUROCONTROL will provide expertise, resources and pool of experts to States through CNS/ATM implementation focusing on PBN, PBN workshops, Aeronautical



Data Quality, including various tools available for ATM occurrence reporting, safety review capacity, and CO₂ emission.

6.7.4.2 EUROCONTROL will offer further its expertise to assist States via the RASG platform to improve their AIS. The same tool given to ENPAG can be provided to APIRG with the objective to reduce the impact of emerging safety issues related to AIS in the AFI region.

6.7.4.3 Lastly, IATA and ICAO were tasked to identify the States who are high priority and to be provided with on-job training in addressing, resolving or providing required aeronautical information.

6.8 Questions and answers

6.8.1 Mr. Tom Kok of AviAssist/ Flight Safety Foundation asked whether the training on Flight Data Monitoring and the need of training for all operators is outside the IOSA scope.

6.8.1.1 Mr. Tytgat commented on how EUROCONTROL gets different quality of data from various sides. Therefore, it is important to have same interpretation of data for which it is necessary to have a common understanding. He also indicated that EUROCONTROL also works together with EASA in this regard that is supported by training.

6.8.2 A participant believed that there was a missing link in IOSA in order to be truly effective, which is that performance needs to be assessed continuously. He commended IATA for implementing the Enhanced IOSA which addressed these issues.

6.8.3 A comment from a Mali delegate noted a lack of additional training programmes on SMS implementation by ICAO following the AFI Comprehensive Implementation Programme (ACIP).

6.8.3.1 Mr. Mostafa Hoummady, Manager of the GAT at ICAO, mentioned that ICAO is developing courses for Annex 19 and all provisions, and has developed a tool for data collection. Training will start in mid-July and August.

6.8.4 A delegate from Mauritania commented that the EU's Safety Assessment of Foreign Aircraft (SAFA) tool is not appropriate for Africa, but it is really relevant for Africa due to consequences. He also recommended the establishment of an African database.

6.8.5 ADS informed the audience of training to be organized by the FAA and ANACIM from 23 to 27 June 2014, in Dakar, Senegal, specifically addressing Aerodrome Emergency Planning.

6.8.6 Boeing informed the audience that videos were developed in cooperation with Embraer:

1. On the internet, open <http://dropbox.navigon.net/default.asp>
2. Username is "RSAT", password is "runway" (case sensitive, no quotation marks);
3. On the home page, open the folder in the upper left "RSAT program" (double click to open);
4. Select "Download" to the right of the file you want to download;
5. Select "Save" to save the file to your desktop;



6. Repeat steps 4 and 5 to download additional file types; and
7. When the downloading is complete, log off the server.

6.9 Captain Hiatt thanked the speakers, emphasizing that collaboration is key. In the light of the great progress made between 2012 and 2013, he congratulated and recommended the Symposium for staying focused on the 2015 target and beyond.

6.10 The preliminary outcomes of Session 6 are presented in the Attachment.

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ATTACHMENT PRELIMINARY OUTCOMES

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
6.1	IATA Safety Operational Audit	Regulators to implement IOSA mandatory requirement within their Regulations	None	Abuja Safety Target (End of 2015)	Legislation	States with support from AFCAC and IATA
6.2	Operational Data Collection and Analysis	Implementation and participation in Safety Information Exchange	Subscription to Flight Data Analysis Provider	July 2015	Operators	States to enforce implementation of ICAO mandate FDA for all operators
6.3	Runway Safety	Support of AFI RASG RST Go teams	Airport authorities to provide resources for deployment of RST Go Teams by sponsoring travel/ accommodation	2014-8 airports and ongoing	Deployment of AFI RASG RST Go Teams	AFI RASG Chairman

¹ The topic should be linked to:

- i) Assistance to the States in the establishment or strengthening of State safety oversight system, an RSOO or RAIO;
- ii) Assistance to States in resolving identified deficiencies within a reasonable time frame, including the implementation of ICAO Plans of Action;
- iii) Enhancement of aviation safety culture of African aviation service providers; or
- iv) Programme of activities under the AFI Plan 2014.

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
6.4	Airport Certification	Clarification of roles	SME who could develop guidance material	September 2015	Guidance material for clarification of roles and responsibilities	ICAO
6.5	CFIT	BaroVNAV Procedures support for full implementation of PBN procedures on demand by Airbus safety with priority given to high traffic volume airports Or - PBN design by contracting Airbus Prosy - Training - SOPs - Systems (ROPS)	Active support to ICAO African Flight Procedures Programme	On going	Develop BaroVNAV Promotion of safe and efficient PBN based on train the trainer and transfer of competence	AFPP and Airbus Safety via Airbus Prosy
6.6	LOC-I	LOC-I toolkit CAST SEIs	Utilization of LOC-I toolkit Detailed Implementation Plans	From November 2014 ongoing	Launch toolkit Share SEIs Regulators to ensure implementation	IATA and Boeing
6.7	Identifying priorities	Identify states with AIS safety concerns and provide OJT	Training Tools/software Utilization of EAD	September 2014 ongoing	OJT and platform	Eurocontrol and IATA

AFRICA-INDIAN OCEAN (AFI) AVIATION SAFETY SYMPOSIUM

Dakar, Senegal, 27 to 28 May 2014

SESSION 7

Round table on the way forward



7

SESSION 7: ROUND TABLE ON THE WAY FORWARD

7.1 The Master of Ceremonies, Mr. Mohamed Elamiri, thanked the Speakers, Moderators and Rapporteurs for the work conducted to materialize this event that has been successful in presenting and exchanging views on the efforts being made to improve safety and air navigation performance in the AFI Region as well as the benefits of attaining the regional safety targets and the regional performance objectives for air navigation systems adopted by the Special AFI RAN Meeting and APIRG since then. He indicated that during six sessions, the attendees were informed about the implementation status of the regional safety targets, the efforts of relevant stakeholders in supporting the attainment of the regional safety targets and improving aviation safety and air navigation performance in the AFI Region, including activities and assistance programmes from different States, Aviation Safety Partners and ICAO. He also mentioned the Safety Collaborative Assistance Network (SCAN) that was developed by ICAO to facilitate and coordinate the sharing of safety information on financial and technical assistance projects as well as to support the identification of projects in need of funding. The SCAN website can be accessed at www.icao.int/safety/scan. Throughout the sessions, areas of opportunity and challenges where relevant stakeholders can work collaboratively towards the attainment of the regional safety targets as well as the improvement of safety and air navigation performance in the AFI Region were identified.

7.1.1 The Master of Ceremonies summarized the major outcomes of the Symposium as listed below and then gave the floor to the Moderators to present the outcomes of their Sessions that would be presented to the AFI Plan Steering Committee meeting to be held from 29 to 30 May 2014. His presentation can be accessed at www.icao.int/Meetings/AFIsymposium2014/Documents/Session%207%20-%20Round%20table%20on%20the%20way%20forward.pdf.

- a) African States should keep the momentum in improving safety and air navigation performance in Africa, which is an essential catalyst for economic and social development of the continent;
- b) African States should take ownership of and implement the regional aviation safety targets;
- c) African authorities were re-engaged and motivated in implementing actions aimed to address the obstacles inhibiting air transport development;
- d) Attendees recognized the efforts made by the international community in supporting safety and air navigation performance in Africa;
- e) Aviation safety partners should convince their development agencies to continue providing assistance and resources to attain the regional safety targets, improve safety and air navigation performance; and
- f) All stakeholders should continue working with ICAO in coordinating assistance projects focusing on the most urgent needs and long-term capacity building.



7.2 Mr. Farid Zizi, Moderator of Session 2, presented the ongoing efforts being made by States and Safety Partners to support the improvement of safety and air navigation in the AFI Region. His presentation is available at www.icao.int/Meetings/AFIsymposium2014/Documents/Session%207%20-%20Preliminary%20Outcomes%20of%20session%202.pdf. In particular, he indicated that his Session identified major assistance efforts that were and would be undertaken by Aviation Safety Partners in support of this region, including:

- a) European Aviation Safety Agency (EASA) through the Support to the Improvement of Aviation Safety in Africa (SIASA), Central Africa Aviation Safety Project (CAASP) and individual assistance projects that may be requested by African States;
- b) The United States Federal Aviation Administration's (FAA) support to the improvement of ATM safety as well as their continued and successful Safe Skies for Africa (SSFA) programme, both to be coordinated with ICAO;
- c) The International Air Transportation Association's (IATA) assistance to African airlines upon request in support of the IATA Operational Safety Audit (IOSA) programme;
- d) The African Civil Aviation Commission's (AFCAC) AFI Cooperative Inspectorate Scheme (AFI-CIS) that would be supported by the United Arab Emirates and the ICAO Safety Fund to deliver assistance to States for resolving deficiencies related to the AOC process; and
- e) ICAO AFI Plan's assistance projects and guidance material on human resource management as well as Regional and Sub-Regional Organizations that would benefit from additional resources from the Republic of Korea and other donors.

7.3 Ms. Iyabo Sosina, Moderator of Session 3, summarized the outcomes of the success stories shared by African States that have been able to resolve their Significant Safety Concerns (SSCs), significantly increase their effective implementation of the critical elements of their safety oversight systems or effectively implemented the ICAO Plans of Action for States. The presentation containing these outcomes can be accessed at www.icao.int/Meetings/AFIsymposium2014/Documents/Session%207%20-%20Preliminary%20Outcomes%20of%20session%203.pdf. This session yielded the following outcomes which are intrinsically supported by the spirit of the Abuja Declaration, in particular the need to secure the political will and resources of African States for their implementation:

- a) The dissemination of lessons learned to States with SSCs and/or low EI and interested donors to support them in their endeavour to enhance their safety oversight capabilities; and
- b) States' implementation of the ICAO Plans of Action in order to resolve SSCs and major safety deficiencies supported by direct technical assistance, ICAO Regional Office Safety Team (ROST) missions and training.



7.3.1 The representative of Gambia noted the need for States to recognize the importance of safety and commit resources, and suggested to include this notion into a new Declaration. Ms. Sosina recalled that the deadline agreed during the Ministerial Conference of Aviation Safety regarding the *establishment and strengthening of autonomous CAAs with independent regulatory oversight, sustainable sources of funding and resources to carry out effective safety oversight and regulation* was end of 2013 and suggested to wait until a monitoring mechanism is developed to review the status of this target and propose its revision. It was also noted that the monitoring of the regional safety targets would be discussed during the AFI Plan Steering Committee meeting that would follow the Symposium.

7.4 The Moderator of Session 4, Mr. Mam Sait Jallow, pointed out that this Session had three main themes: a) Training; b) Regional Safety Oversight Organizations; and c) Air navigation services in the AFI Region. He presented the following outcomes from the discussions held about the challenges and areas of opportunity at the regional level in these three areas. The presentation of the outcomes of this Session can be accessed at www.icao.int/Meetings/AFIsymposium2014/Documents/Session%207%20-%20Preliminary%20Outcomes%20of%20session%204.pdf.

- a) In the area of training, the Session identified the need to implement human resource development strategies and plans by African States as well as the development of training programmes and plans. It was noted that African States and ICAO would be the leads for these initiatives;
- b) With regard to the sustainability of RSOOs, a number of actions were proposed to support the establishment, strengthening, funding and amalgamation of these entities. These actions are proposed to be led by the Boards of Directors of these bodies, Heads of the Regional Economic Communities, AFCAC and ICAO;
- c) The theme of the RSOOs also stressed the opportunity for States to delegate functions to these Organizations that can be supported by Memoranda of Understanding for that effect. It was mentioned that States should also oversee the activities conducted by RSOOs on their behalf and should balance their structures to avoid duplications; and
- d) In relation to ANS, the outcome resulted in a call for a clear separation of functions between Regulators and service providers, the enhanced implementation of PBN through the African Flight Procedure Programme (AFPP), and the cooperation between ANSPs and the integration of airspace for seamless ANS. The leads identified for these actions include Ministers responsible for Civil Aviation, Directors General of Civil Aviation, ASECNA and ICAO.

7.5 Mr. Meshesha Belayneh, Moderator of Session 5, shared the outcomes of the discussion held to address the main challenges and take advantage of the areas of opportunity for States. This presentation is available at www.icao.int/Meetings/AFIsymposium2014/Documents/Session%207%20-%20Preliminary%20Outcomes%20of%20session%205.pdf.



- a) The establishment of autonomous CAAs capable of regulating the industry, with sufficient and appropriate human, technical and financial resources or an active participation in RSOOs is to be led by States and their CAAs;
- b) Air operators certification and maintenance of an aircraft registry, consistent with international requirements, was proposed to be supported by several actions to be implemented by CAAs and Air Operators. It also recognized the need for States to share information on AOC holders through the AOC database in order to streamline the operations of these providers;
- c) To achieve aerodrome certification, CAAs should develop and promulgate enabling regulations, processes and procedures consistent with international requirements, and conduct certification and oversight activities. Airport operators should also support States in the analysis of safety risks and the development of aeronautical studies; and
- d) In order to achieve an effective evolution from safety oversight to safety management, CAAs and the industry should implement State Safety Programmes (SSPs) and safety management systems (SMS) once an EI of 60 per cent is achieved. This objective may be supported by developing SSP/SMS Implementation Plans and assistance programmes, promoting safety culture, collaborate the RSOOs and recourse to Article 83bis of the Convention on International Civil Aviation. In addition, ICAO was called to consider developing an implementation Roadmap for the revised Global Aviation Safety Plan in order to facilitate its implementation by all sectors of civil aviation.

7.6 Captain Kevin Hiatt, Moderator of Session 6, presented as outcomes the efforts that the industry can contribute to the improvement of aviation safety and air navigation performance in Africa. The presentation that includes the outcomes of this Session is summarized below and are available at www.icao.int/Meetings/AFIsymposium2014/Documents/Session%207%20-%20Preliminary%20Outcomes%20of%20session%206.pdf.

- a) Regulators with support of AFCAC and IATA should consider implementing an IOSA requirement within their regulations to enhance oversight of air operators;
- b) The implementation and participation in safety information exchange of Flight Data Analysis for all operators should be fostered to support predictive data analysis in Africa;
- c) Deployment of Runway Safety Go Teams to support the reduction of runway-safety related accidents should be led by AFI-RASG and ICAO;
- d) To address CFIT, the AFPP and Airbus should develop procedures for full implementation of PBN. Loss of Control In-flight can also be supported by the development of toolkits and CAST Safety Enhancement Initiatives that IATA and Boeing are leading;



- e) There is a need to clarify the roles for aerodrome certification that ICAO may support through guidance in this regard; and
- f) EUROCONTROL and IATA can work with States with AIS safety concerns and provide on-the-job training to address them.

7.7 The Master of Ceremonies indicated that the Preliminary Outcomes of this Symposium, as contained in item 7.10, will be presented to the AFI Plan Steering Committee for consideration. He also gave the floor to the AFI Plan Chairperson who thanked the Moderators, Speakers and Rapporteurs for their efforts in materializing this event. He reassured that the outcomes will be reviewed by the Steering Committee. He noted the improvement achieved in the area of safety, including the improvement of EI and implementation of ICAO Plans of Action by some States that will support the attainment of the aviation safety targets. He underscored that between 2008-2013, training activities had been conducted, which promoted the skills of aviation professionals in Africa. He then thanked ICAO and in particular the Secretary General for his continued support in enhancing aviation safety in Africa.

7.8 The Master of Ceremonies also gave the floor to the Director of the ICAO Technical Co-operation Bureau (TCB), who recalled the roles of ICAO. D/TCB highlighted the sixty years of experience of the Bureau and the cooperation with over 100 States in about 120 projects each year. The main areas of cooperation include procurement of goods and services, addressing findings of ICAO audits, development of guidance materials, training/capacity-building and recruitment and deployment of subject matter experts. He also gave an overview of the current activities in the AFI Region: there are active projects in seventeen States, in addition to nine regional projects with groupings of States, regional economic communities and international organizations. These include the AAMAC, ASECNA, the Banjul Accord Group, CEEAC, SADC and UEMOA. Furthermore, D/TCB reminded and invited the participants of the meeting to the Global Aviation Cooperation Symposium to be held in Montreal from 30 September to 3 October 2014. This Symposium will bring together civil aviation stakeholders and has the following objectives:

- a) Promote ICAO SARPs and the role and resources of its Technical Co-operation (TC) programme; and
- b) Assist States in identifying needs and comprehensive solutions to common deficiencies found in ICAO audits; and
- c) Share common aviation challenges and the use of best practices for the future of civil aviation; and
- d) Strengthen institutional and cross-industry relationships.

7.8.1 Further information can be found at www.icao.int/GACS.

7.9 The Secretary General mentioned that his efforts will be continued to focus on the African continent. He recognized that the scarcity of resources is an issue that affects most States in the region; therefore, the available resources should be optimized. He also asked for an inventory of needs

to identify resources to support the regional safety targets. The Secretary General then declared the Symposium closed.

7.10 The preliminary outcomes of Session 7 are presented in the Attachment.

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7.11 SYMPOSIUM CONCLUSIONS

Recognizing air transport as an essential engine for the economic and social development by creating direct and indirect employment in aviation related services, supporting tourism and local businesses and stimulating foreign investment and regional trade;

Recognizing the efforts made by the African Civil Aviation Commission (AFCAC) under the leadership of the African Union (AU) and with the assistance of ICAO, towards the implementation of the Resolutions of the African Union Conference of Ministers responsible for Air Transport in Abuja, Nigeria, and the initial achievements in improving specific aspects of air transport in Africa;

Acknowledging strong concerns regarding the current state of the African aviation sector, which continues to face serious safety challenges characterized by (i) a continued high accident rate, (ii) the difficulty of many air operators to establish adequate access to finance the procurement of modern aircraft, and (iv) the increased shortage of qualified human resources;

Reinforcing the critical importance for African States to discharge their regulatory oversight responsibility on their aviation sector, thus ensuring compliance with ICAO Standards and Recommended Practices (SARPs);

Emphasizing the need for cooperation and partnership between States, organizations and industry, under the ICAO leadership, in order to engage in coordinated safety improvements.

The Symposium concludes:

1. Safety

Reaching an internationally acceptable level of aviation safety is a basic condition for the development of sustainable air transport services. It requires the full implementation of (i) the Resolutions adopted in Abuja, Nigeria, by the African Ministers responsible for air transport, (ii) the Regional Economic Communities frameworks and (iii) the relevant ICAO Standards, Recommended Practices and guidance materials. Africa is facing increased pressure to improve aviation safety level. The States concerned may experience the exclusion of some of their air operators from international markets if they do not secure an adequate operational oversight regime. Safety is improving on the continent but there is still a need to improve more. To monitor States' performance in improving this situation ICAO has established Regional Performance Dashboards.

In the African market, access to affordable finances and related services such as insurance is often very difficult, as the rate of accidents presents a particular risk. Reliable regulatory

oversight by the National Civil Aviation Authorities (CAAs) is critical to achieve an acceptable level of safety and security, which should be recognized as a national priority. There is therefore a need to consolidate CAAs' autonomy and to stabilize their governance. The turnover of Director Generals of these CAAs is too high, often leading to a lack of continuity in their management. Air transport being an essential engine for the economic and social development, States must politically commit themselves in supporting aviation activities.

African CAAs should take advantage of various initiatives and available instruments in order to support their regulatory responsibility and increase both African market share and African operator access to world market. These include: (i) the establishment of sustainable sub-regional safety oversight institutions being evolved from various COSCAPs, (ii) the coordinated implementation of the Global Aviation Safety Plan, and (iii) the implementation of various donors' technical assistance programmes, including but not limited to those from the European Union, U.S., the Republic of Korea training and the IATA operational safety audit of airlines (IOSA). Based on the Global Aviation Safety Plan, ICAO is developing a comprehensive Regional Plan for Africa. African States shall engage in the implementation of this Regional Plan. The Regional Aviation Safety Group (RASG/AFI), whilst bringing industry and States together, shall coordinate the implementation of the Regional Plan by all stakeholders.

2. Human Resources Development

The insufficient adequate human resources has become a serious concern for aviation in general and for the African aviation sector in particular. Scarce training and a high rate of brain drain among the few well-trained personnel, often to operators outside the continent, are a major threat for the development of air transport in Africa. Most African States are facing aging personnel coming to retirement very soon. Existing training centres, regional training programmes and international cooperation with well-established air operators, aircraft manufacturers or with foreign aviation authorities are essential to develop adequate resources. Existing training centres need to harmonize their programmes. The concerned institutions are responsible for providing training suitable for their resources and market size. The removal of regional - physical or other - barriers to deployment of personnel among African States is instrumental for better developing and managing human resources. Foreign assistance in the field of training should be focused on establishing training centres in Africa in order to maximize the number of trainees.

3. Technology

The modernization of technology in the African aviation sector is both an opportunity and a risk. Many African States can indeed benefit from newer and more efficient technologies (e.g. GNSS and ADS-B) by circumventing older or more expensive systems. Lack of action in this regard may lead to increased restrictions, even exclusion. For States with limited civil aviation activities, regional integration may be the only way forward in order to secure cost-effective investment and achieve better return. In this regard, the establishment of regional air navigation service entities similar to ASECNA and Roberts FIR should be encouraged in other African sub-regions.

4. **Development Cooperation**

Development programmes for Africa exist since 1960. A significant amount of money has been provided in support of numerous African sectors. As far as aviation is concerned, bilateral and multilateral donors have financed and are still financing air transport infrastructure (airports, air navigation systems, security installations), capacity building programmes (national or regional), as well as policy advice and support (privatization of carriers, liberalization). Progress has remained generally below expectations, while a proliferation of new initiatives is currently taking place in various African regions. ICAO serves as coordinator aiming to address any uncoordinated effort and initiative that may lead to duplication and inefficient allocation of resources. Cooperation, coordination and collaboration are certainly the best means in reducing operational costs and avoiding waste of resources. There is a need for better data collection and sharing between operators and CAAs to engage in the proactive analysis of the data collected.

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ATTACHMENT

COLLABORATIVE IMPLEMENTATION PROGRAMME

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
2.1	Support to the Improvement of Aviation Safety in Africa (SIASA)	Assistance missions regulation and guidance material Workshop Training SOFIA ECCAIRS RSOO	EU Funds	?	States to take advantage of assistance offered	EASA
2.2	Central Africa Aviation Safety Project (CAASP)	ASSA-AC Training Workshop Aerodrome study	EU Funds	?	States to take advantage of assistance offered	EASA
2.3	Assistance to individual States	Accident & incident investigation regulatory and institutional framework Technical and organizational capacity building SOFIA Aviation safety studies	EU Funds	?	States to request assistance	EASA
2.4	Support the improvement of ATM safety	Seminar on strategies for managing an effective ATM oversight organization	US Technical Assistance	?	ICAO to coordinate training under AFI Plan	US FAA

¹ The topic should be linked to:

- i) Assistance to the States in the establishment or strengthening of State safety oversight system, an RSOO or RAIO;
- ii) Assistance to States in resolving identified deficiencies within a reasonable time frame, including the implementation of ICAO Plans of Action;
- iii) Enhancement of aviation safety culture of African aviation service providers; or
- iv) Programme of activities under the AFI Plan 2014.

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
2.5	Safe Skies for Africa	Training	US Technical Assistance	?	States to take advantage of training offered	DOT
2.6	IATA Operational Safety Audit (IOSA)	Assistance to airlines to prepare	IATA funds	?	Airlines to request assistance	IATA
2.7	AFI Cooperative Inspectorate Scheme (AFI-CIS)	Assistance to States for resolving deficiencies related to the AOC process	Funding for inspector training and missions	?	UAE offered support which needs to be detailed ICAO considering support from SAFE fund	AFCAC
2.8	AFI Plan	Assistance projects	Republic of Korea funds in SAFE Fund	2016	Assistance projects to be coordinated by ICAO	ICAO
2.9	AFI Plan	Guidance on Human Resource Management Policies			Articulation Initial Training, Continuous training, Retaining Competent personnel on post	ICAO
2.10	AFI Plan, RSOO	Guidance on AFI Regional and Sub Regional Organisations	UAE	2015	Clear Description of Regional and Sub Regional Organisations and their Mandate with focal points	ICAO, AFCAC
3.1	Disseminating lessons-learned to States with SSCs and/or low EI and matching donors for them	Resolution of SSCs and major safety deficiencies Strengthening of oversight activities	Technical and financial assistance	N/A	Voluntary contribution from donor States and partners	ICAO, AFCAC and other Partners States
3.2	Implementation of ICAO Plans of Action	Resolution of SSCs and major safety deficiencies	Assistance through AFI Plan	N/A	Continued direct assistance to States (ROST missions and training)	ICAO/AFCAC
4.a.1	Human Resources Development	Implementation of Human Resources Development	ICAO support (AFI Plan)	31 December 2015	Training for HR Managers Training for Subject	ICAO

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
		Strategies and plans by States	AU support (African Civil Aviation Policy)		Matters Standardized competencies Harmonized training Use of competency-based training	
4.a.2		Development of Training programmes /plans	ICAO Support States	31 May 2015	Develop a training programme on the basis of a sound training policy.	ICAO States – Directors General of CAAs
4.b.1	Sustainability of RSOOs	MOUs with Regional Economic Communities (RECs) for institutional and financial support.	ICAO support	31st December 2014	Drafting the MOU; Meeting with Heads of the RECs; Signature of MOUs.	RSOO Board of Directors Heads of RECs, President of ICAO and AFCAC SG.
4.b.2		Implementation of a Levy	ICAO support AFCAC	31st Dec 2014	Agreement by member states; Appointment of collection agencies; Implementation	RSOO Board of Directors, Council of Ministers and President of ICAO
4.b.3		Amalgamation and integration of RSOOs into larger entities	RECs AFCAC ICAO	31 May 2016	Evaluation of optimum number and configuration of RSOOs Development of an implementation plan/strategy.	RSOO Board of Directors, REC Presidents, ICAO and AFCAC SG.
4.b.4	Delegating functions to RSOOs	Strengthened safety and	Sustainable	Continuous	Promote and establish	Ministers

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
		security oversight systems and capabilities. Formal letters of Agreement MOU between RSOOs and States on delegated functions.	and adequate funding; Sufficient and qualified personnel Political will and management commitment.		strong RSOOs with adequate and sustainable funding mechanisms; Establishment of strong RSOOs with adequate and sustainable funding mechanisms; Pooling of resources; Clear Identification of functions to be delegated to RSOOs.	responsible for Civil Aviation; Directors General of CAAs; Heads of Regional Economic Communities; CEOs of RSOOs;
4.c.1	Air Navigation Services separation of functions between Regulator and Operator	Clear separation of functions between Regulators and service providers	ICAO Support	31 December, 2015	Review Legislation and Mandate of aviation entities; Identify and provide adequate resources for aviation entities.	Ministers responsible for Civil Aviation; Directors General of CAAs.
4.c.2		Enhanced implementation of PBN through the African FPP	ICAO Support	31 December 2014	Adherence of States to African FPP	ICAO ASECNA States
4.c.3		Address the problem of missing operational messages and data (Flight plans, OPMET etc.).	ICAO Support	31 December 2014	Address/implement relevant APIRG Conclusions	ICAO ASECNA States
4.c.4		Work progressively for cooperation between ANSPs	ICAO Support	31 December, 2014	Programme of civil/military coordination	Ministers responsible for



Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
		and the integration of airspaces for seamless air navigation services.			workshops (worldwide and regional) Conclusion of Letters of Agreement (LOA) between States for SAR and development and testing of contingency plans.	Civil Aviation; Directors General of CAAs.
5.1.1	Establishment and strengthening of CAA	Autonomous CAA capable of regulating industry, with sufficient resources (qualified personnel, financial, technical) Active participation in RSOOs	Yes	Abuja safety targets (2013)	Implement Critical Elements Develop appropriate legislation and regulations based on ICAO model regulations Allocate sufficient resources to CAA Develop human resource plan for CAA personnel	States/CAAs
5.1.2	Establishment and strengthening of CAA	Training programmes developed and implemented for CAA personnel	Yes	Abuja safety targets (2013)	Establishment of Training Academy Develop and implement proper training programmes & plans for CAA personnel	CAAs Industry
5.1.3	Establishment and strengthening of CAA	Autonomous CAA	Yes	Abuja safety targets (2013)	Implement Critical Elements	States/CAAs

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
	strengthening of CAA	capable of regulating industry, with sufficient resources (qualified personnel, financial, technical)		targets (2013)	<p>Elements</p> <p>Develop appropriate legislation and regulations based on ICAO model regulations</p> <p>Allocate sufficient resources to CAA</p> <p>Develop human resource plan for CAA personnel</p>	<p>CAAs States</p> <p>States/CAAs</p> <p>States/CAAs</p>
5.1.4		Delegation of responsibility (where justified)	Yes	Abuja safety targets (2015)	Use of Article 83 <i>bis</i> to perform safety oversight functions	CAAs ICAO
5.2.1	Air operators certification and maintenance of an aircraft registry	Air Operators certified and aircraft register maintained	Yes	Abuja safety targets (2013)	<p>Establish primary aviation legislation</p> <p>Promulgate enabling regulations covering all Annexes</p> <p>Clearly define the relationship between States and operators</p>	<p>CAAs Air Operators Partners CAAs CAAs</p>
5.2.2	Air operators certification	Air Operators certified	Yes	Abuja safety targets (2013)	<p>Develop of Guidance Material</p> <p>Conduct air operator certification activities</p>	<p>CAAs Air Operators Partners CAAs</p>
5.2.3	Maintenance of an aircraft registry	Aircraft register maintained	Yes	Abuja safety targets (2015)	Establish procedures for aircraft registry	CAAs Air Operators

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
					maintenance	
5.2.4	Air operators certification and maintenance of an aircraft registry	Air Operators certified and aircraft register maintained	Yes	Abuja safety targets (2015)	Conduct safety oversight activities	CAAs
5.2.5	Air operators certification and maintenance of an aircraft registry	Air Operators certified and aircraft register maintained	Yes	Abuja safety targets (2015)	Develop a human resource development plan for CAA personnel	CAAs
5.3.1	Aerodrome Certification	International aerodromes certified	Yes	Abuja safety targets (2015)	Develop and promulgate enabling regulations Conduct aerodrome certification activities Conduct safety oversight activities	CAAs Airport Operators CAAs CAAs
5.3.2	Air operators certification Aerodrome Certification	Sharing of information related to a certification at national/international level	Yes	Abuja safety targets (2015)	States to support AOC database project	CAAs
5.3.3	Aerodrome Certification	Qualified and duly trained personnel	Yes	Abuja safety targets (2015)	Conduct of Joint Training among Stakeholders	CAAs Industry
5.3.4	Aerodrome Certification	Zoning	Yes	Abuja safety targets (2015)	Conduct safety risk analysis and aeronautical studies	CAAs Airport Operators
5.4.1	Evolving from Safety Oversight to Safety Management	State Safety Programmes Safety & Management Systems	Yes	Abuja safety targets (2015)	Promote safety culture Conduct Gap Analyses	CAAs ICAO Industry CAAs ICAO

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
					Develop SSP/SMS Implementation Plans Implement SSP/SMS Conduct SSP/SMS training	CAAs Industry CAAs Industry
5.4.2	Evolving from Safety Oversight to Safety Management	Assistance programmes	Yes	TBD	Develop assistance programmes	CAAs ICAO Partners
5.4.3	Evolving from Safety Oversight to Safety Management	Active participation in RSOOs	Yes	Abuja safety targets (2013)	Participate in, and collaborate with RSOOs	CAAs RSOOs
5.4.5	Evolving from Safety Oversight to Safety Management	Global Aviation Safety Roadmap	Yes	TBD	Consider developing a Roadmap to facilitate GASP implementation	ICAO Partners
6.1	IATA Safety Operational Audit	Regulators to promote implementation of IOSA mandatory requirement within their Regulations	None	Abuja Safety Target (End of 2015)	Promotion-Legislation	States with support from AFCAC and IATA
6.2	Operational Data Collection and Analysis	Implementation and participation in Safety Information Exchange	Subscription to Flight Data Analysis Provider	July 2015	Operators	States to enforce implementation of ICAO mandate FDA for all operators
6.3	Runway Safety	Support of AFI RASG RST Go teams	Airport authorities to	2014-8 airports and	Deployment of AFI RASG RST Go Teams	AFI RASG Chairman



Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
			provide resources for deployment of RST Go Teams by sponsoring travel/ accommodation	ongoing		
6.4	Airport Certification	Clarification of roles	SME who could develop guidance material	September 2015	Guidance material for clarification of roles and responsibilities	ICAO
6.5	CFIT	BaroVNAV Procedures support for full implementation of PBN procedures on demand by Airbus safety with priority given to high traffic volume airports Or - PBN design by contracting Airbus Prosky - Training - SOPs - Systems (ROPS)	Active support to ICAO African Flight Procedures Programme	On going	Develop BaroVNAV Promotion of safe and efficient PBN based on train the trainer and transfer of competence	AFPP and Airbus Safety via Airbus Prosky
6.6	LOC-I	LOC-I toolkit CAST SEIs	Utilization of LOC-I toolkit Detailed Implementation Plans	From November 2014 ongoing	Launch toolkit Share SEIs Regulators to ensure implementation	IATA and Boeing



Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
6.7	Identifying priorities	Identify states with AIS safety concerns and provide OJT	Training Tools/software e Utilization of EAD	September 2014 ongoing	OJT and platform	Eurocontrol and IATA

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