



ICAO

SAFETY

Africa-Indian Ocean (AFI) Aviation Safety Symposium

Maputo, Mozambique, 20-21 May 2015



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,
but not as representing the views of the organization.

Table of Contents

Abbreviations	ii
HISTORY OF THE SYMPOSIUM.....	1
1. Duration.....	2
2. Attendance	2
3. Master of Ceremonies, Moderators and Rapporteurs.....	2
4. Welcoming note by Mr. Halidou Moussa, Chairman of The AFI Plan Steering Committee.....	3
5. Opening Speech by Mr. Steven Patrick Creamer, Director, Air Navigation Bureau, ICAO delivered on behalf of Mr. Raymond Benjamin, the ICAO Secretary General	4
6. Welcoming Note – Minister of Transport and Communication, Republic of Mozambique	6
7. Executive Summary	7
OUTCOMES OF THE SYMPOSIUM.....	10
SESSION 1: – ABUJA SAFETY TARGETS - IMPLEMENTATION/MONITORING/FOLLOW-UP	12
SESSION 2: RASG-AFI SAFETY ENHANCEMENT INITIATIVES AND CONTRIBUTIONS FROM PARTNERS	20
SESSION 3: UNDERSTANDING CONTROLLED FLIGHT INTO TERRAIN (CFIT).....	25
SESSION 4: UNDERSTANDING LOSS OF CONTROL IN-FLIGHT (LOC-I)	29
SESSION 5: STATE OVERSIGHT RESPONSIBILITIES AND ICAO STATE SAFETY PROGRAM SAFETY	33
SESSION 6: SAFETY IN AFI REGION – OPPORTUNITIES AND CHALLENGES FOR ENHANCEMENT.....	40
SESSION 7: – SAFETY SYMPOSIUM OUTCOMES AND MOVING FORWARD.....	45
LIST OF PARTICIPANTS	54

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	ICAO Aviation Development Coordinated 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 Organization
CAP	Corrective Action Plan
CASSOA	East African Community Civil Aviation Safety and Security Oversight Agency
CAST	Commercial Aviation Safety Team
CEMAC	Economic and Monetary Community of Central Africa
CEO	Chief Executive Officer
CFIT	Controlled Flight Into Terrain
COO	Chief Operating Officer
COSCAP	Cooperative Development of Operational Safety and Continuing Airworthiness Programmes
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	U.S. 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 Programme
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 Systems
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-job training
OLF	ICAO 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
SAISA	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 Programmes
TC	Technical Co-operation programme
TCB	Technical Cooperation 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
WACAF	Western and Central African Office, Dakar

HISTORY OF THE SYMPOSIUM

SECOND AFRICA-INDIAN OCEAN (AFI) AVIATION SAFETY SYMPOSIUM
Maputo, Mozambique, 20 to 21 May 2015
HISTORY OF THE MEETING

1. Duration

1.1 The Second *Africa-Indian Ocean (AFI) Aviation Safety Symposium* was held at the Joachim Chissano Conference Centre in Maputo, Mozambique, 20 to 21 May 2015.

2. Attendance

2.1 The Symposium was attended by more than 300 participants of ICAO Member States and international organizations, as presented in the Attachment.

3. Master of Ceremonies, Moderators and Rapporteurs

3.1 Dr. Olando Anselmo, Journalist served as the Master of Ceremonies of the Symposium.

3.2 The Sessions were moderated and summarized by the following Officials and supported by Rapporteurs, as shown in the list below.

Session	Moderator	Rapporteur
Session 1	Ms. Iyabo Sosina, Secretary General, AFCAC	Mr. Mesfin Fikru, Director of Safety and Training, AFCAC
Session 2	Mr. Zakhele G. Thwala, Acting RASG-AFI Chairman and Deputy Director, Civil Aviation, Department of Transport, South Africa	Mr. Prosper Zo'o Minto'o, Deputy Regional Director, Eastern and Southern African Office, Nairobi, ICAO
Session 3	Mr. Chamsou Andjorin, Director, Africa and the Middle East – Aviation Safety, BOEING	Mr. Milton Tumusiime, Regional Officer, Flight Safety, Eastern and Southern African Office, Nairobi, ICAO
Session 4	Mr. Harry Nelson, Executive Operational Advisor to Product Safety – Experimental Test Pilot, AIRBUS	Mr. Eyob Estifanos Kebede, Associate Regional Programme Officer, ICAO AFI Plan
Session 5	Mr. Barry Kashambo, Regional Director, Eastern and Southern African Office, Nairobi, ICAO (ICAO ESAF)	Mr. Ousman K. Manjang, Regional Officer, Western and Central African Office, Dakar, ICAO
Session 6	Mr. Steve Creamer, Director, Air Navigation Bureau, ICAO HQ	Mr. Gaoussou Konate, Deputy Regional Director, Western and Central African Office, Dakar, ICAO
Session 7	Mr. Halidou Moussa, Chairman, AFI Plan Steering Committee	Mr. Prosper Zo'o Minto'o, Deputy Regional Director, Eastern and Southern African Office, Nairobi, ICAO

4. Welcoming note by Mr. Halidou Moussa, Chairman of The AFI Plan Steering Committee

4.1 Mr. Halidou Moussa, Chairman of the AFI Plan Steering Committee, gave a presentation entitled 'Implementation Status of Abuja Safety Targets for Africa'. He recalled the main Abuja Safety Targets as follows:

1. Establish and strengthen the autonomy of CAAs by Dec 2013;
2. Reduce runway related accidents and serious incidents by 50% by the end of 2015;
3. Reduce controlled flight into terrain (CFIT) related accidents and serious incidents by 50% by the end of Dec 2015;
4. Reduce Loss of Control related accidents/serious incidents by 50% by the end of 2015;
5. Resolve existing SSCs by July 2013 and newly identified SSCs within 12 months;
6. Increase EI of all African States to world average by the end of 2017;
7. Certify all International Aerodromes by the end of 2015;
8. Implement SSP and SMS by end 2015;
9. Require African airlines to complete IOSA by end 2015.

4.2 He informed the Symposium on the main goals of the AFI Plan in 2015 which were highlighted as follows:

- At least 50% of African States to reach the 60% average of EI;
- To resolve all outstanding SSCs, and
- To implement the 2015 Training Programme as adopted by the AFI Plan Steering Committee, including the training activities of the relevant partners.

4.3 Mr. Moussa recounted on the 'Good News' relating to the progress made in the implementation of the AFI Plan vis-à-vis the attainment of the Abuja Safety Targets. He reported that, so far

- 18 African States have an EI of 60% and above;
- 09 States have an EI between 50% and 59%;
- 05 States have an EI between 40% and 49%;
- 31 States have signed specific Action Plans with ICAO to implement their corrective action plans (as of May 2015).

4.4 He informed the Symposium that although good progress has been made a total of seven (7) Significant Safety Concerns (SSCs) remains unresolved in six States and the target is to resolve all outstanding SSCs by the end of December 2015. He further reminded the Symposium that Safety Oversight is a State responsibility and therefore urged all other States to take the same level of commitment towards improvement of the Effective Implementation (EI) rate within the USOAP framework.

4.5 He concluded by highlighting the challenges with respect to the continued lack of qualified personnel in Africa and the efforts being made in collaboration with partners to tackle this challenge.

— — — — —

5. Opening Speech by Mr. Steven Patrick Creamer, Director, Air Navigation Bureau, ICAO delivered on behalf of Mr. Raymond Benjamin, the ICAO Secretary General

5.1 It is exactly one year ago when ICAO welcomed you to the First Africa-Indian Ocean (AFI) Aviation Safety Symposium organized by ICAO in Dakar, Senegal.

5.2 The success of that event, coupled with the positive feedback we received prompted the decision to organize a Second Africa-Indian Ocean (AFI) Aviation Safety Symposium, this time being held in Maputo, Mozambique.

5.3 As you are aware, the Second AFI Aviation Safety Symposium is being held back-to-back with a series of other ICAO meetings namely; the launching of the AFI Aviation Security and Facilitation (SECFAL) Plan and its First Steering Committee Meeting, the Fifteenth Comprehensive Regional Implementation Plan for Aviation Safety in Africa (AFI Plan) Steering Committee Meeting, and the AFI Human Resources Development Fund (HRDF) Meeting.

5.4 The objective of this symposium therefore is to review the status of implementation of the various ICAO safety initiatives for Africa with a focus on the level of attainment of the Abuja safety targets endorsed by the African Union (AU) Heads of State in January 2013. Furthermore, the event will provide us the opportunity to share success stories and challenges, and generate relevant strategies to further enhance safety in the region.

5.5 During the 15th Meeting of the AFI Plan Steering Committee held yesterday the 19th May 2015, we were informed that the programme has continued to register great success in providing the much needed technical assistance to African States whilst helping to build the required capacity, thus contributing towards the improvement of the safety oversight capability in more and more African States.

5.6 To date, a total of thirty-one (31) ICAO Plans of Action have been developed and presented to African States. I am pleased to report that ALL 31 Plans of Action have been accepted with Ministerial level Government commitment towards their implementation. We have, so far, seen some positive and encouraging results from the implementation of these Plans of Action such as: the timely resolution of Significant Safety Concerns (SSCs) and gradual improvement in the levels of Effective Implementation (EI) by increasing number of African States.

5.7 With respect to capacity building, various courses have been delivered with the aim of closing the skill gaps identified during the ICAO USOAP audits. The courses delivered have been effectively coordinated between the Global Aviation Training (GAT) Section of ICAO, the Association of Aviation Training Organizations (AATO) and the relevant training centres within Africa.

5.8 With regards to Abuja safety targets, we have together registered significant progress towards meeting the set out safety targets. However, current data, available to ICAO indicates that most of these targets will not be achievable within the agreed timeframe. It is therefore critical that, as we take stock of the progress made thus far, we also review our implementation strategies with the possibility of focused re-orientation of our activities as and when required.

5.9 It would be recalled that during the first Symposium, the Secretary General challenged the Regional Aviation Safety Groups (RASGs) to facilitate and monitor the attainment of global and regional targets. In this regard, I am pleased to report that the Regional Aviation Safety Group for the Africa and Indian Ocean Region (RASG-AFI) has been playing a leading role since its inception in March 2012.

5.10 The RASG-AFI has since identified and developed relevant projects aimed at achieving very specific and targeted results in line with the Abuja Safety targets. The first such project is aimed at reducing runway safety-related incidents and accidents through the establishment of Runway Safety Teams (RSTs) at International Airports within the AFI region. Several RSTs have already been successfully established. In the same vein, progress has also been made in the development of projects on Accident Investigation (AIG) for the development of an AIG Toolkit for States and a similar project on Loss of Control In-flight (LOC-I).

5.11 Needless to say, each of these projects will require adequate human and financial resource(s) in order to achieve the required results. To this end, I would like to call on all stakeholders, States, regional and International organizations alike to join hands in the mobilization of the required resources.

5.12 It is noteworthy that the support being provided to the various AFI safety Initiatives by the international community, development partners and by all aviation safety partners has not gone unnoticed. In fact, it is very much welcome and highly appreciated by all. However, it is also worth mentioning that a lot still remains to be accomplished towards the realization of various objectives and goals such as the Abuja safety targets. Therefore, I would like to further encourage African States, stakeholders and other partners to continue to work together towards the realization of these objectives.

5.13 It is an honour to inform you that the first RASG-AFI Annual Safety Report has been published and the launching ceremony will take place during the course of the symposium. This milestone is both a historic and a significant accomplishment for the Group as the report will provide a holistic picture of the situation in the region. It is envisaged that the analysis derived from Annual Safety Report as a reporting tool will also contribute to update the Global Aviation Safety Plan (GASP).

5.14 Finally, ladies and gentlemen, I wish you successful deliberations over the coming days and a pleasant stay in Maputo. Thank you for your kind attention.

— — — — —

6. Welcoming Note – Minister of Transport and Communication, Republic of Mozambique

6.1 He expressed his pleasure to address an illustrious audience during this Civil Aviation Event and welcomed everyone to Mozambique, and to the City of Maputo, one of the most beautiful cities of the country.

6.2 According to the Honourable Minister, the decision by the Republic of Mozambique to host the African Aviation Week demonstrates his Government's commitment to develop a safe and efficient national air transport system through effective implementation of the international safety standards. This commitment emanates from Mozambique's signature of the Chicago Convention back in 1977 thus becoming a member of ICAO in addition to its membership of AFCAC and various regional civil aviation organizations.

6.3 Mozambique has taken part in the ICAO USOAP and USAP Audit activities, both of which identified some deficiencies that led to the development of appropriate Corrective Action Plans which were subsequently were accepted by ICAO.

6.4 In the implementation of these Corrective Action Plans, we express our appreciation to ICAO and other friendly countries for the technical assistance that was provided either through the Technical Co-operation Bureau (TCB) and/or bilateral cooperation.

6.5 The Minister highlighted the fact that, in general, the audit results have revealed identical challenges in most African countries and some of these challenges include, but not limited to the following:

- the absence of an appropriate State safety oversight system;
- improper certification of air operators and airport infrastructures;
- the lack of trained and qualified technical personnel;
- the lack of adequate legislation and appropriate technical regulations; and
- the lack of human and financial resources.

6.6 According to the Honourable Minister, the results of the ICAO audit in Mozambique during the first cycle has given rise to a national restructuring program in the aviation sector which led to the creation of the Civil Aviation Authority (the IACM), the approval of an amendment to the Aviation Law and the approval of aeronautical and technical regulations known as MOZ-CAR and MOZ-CATs.

6.7 He noted that the aviation industry is growing rapidly with the increase of number of air operators which is due to the growth in tourism. He informed the meeting that the Government has made corresponding level of investment in the aviation sector in in recent years mainly in the area of airport infrastructures with the expansion of Maputo International Airport, construction of Nacala Airport, rehabilitation of tracks and purchase of new equipment and the training of technical personnel.

6.8 He concluded by acknowledging the role of regional cooperation with emphasis on the impact that the COSCAP project which was established and funded by ICAO and development partners with the eventual establishment of the SASO/RSOO. Today we witness the positive impact that regional safety oversight organizations have made on the increasing levels of aviation safety and air navigation oversight. The examples of this are CASSOA, SASO in Southern Africa -SADC region that recently began its operation.

— — — — —

7. Executive Summary

7.1 The Second AFI Safety Symposium noted the following main goals of the Comprehensive Regional Plan for Safety in Africa (AFI Plan) in 2015:

- a) Achievement by at least 50% of African States of the 60% average of effective implementation (EI);
- b) Resolution of all outstanding SSCs, and
- c) Implementation of the 2015 Training Programme as adopted by the AFI Plan Steering Committee, including the training activities of the relevant partners.

7.2 It was noted that 18 African States have achieved an EI of 60% and above; and that 31 States have signed specific Action Plans with ICAO to implement their corrective action plans (as of May 2015). Seven (07) unresolved SSCs in 6 States are yet to be addressed.

7.3 The Symposium panels and sessions involved States, ICAO, AFCAC, EU, EASA, , US FAA and Industry (ACI, ASECNA, AATO, CANSO, IATA, Airbus, Boeing, airlines, airports, and air navigation service providers).

7.4 Session 1 focused on the Status of aviation safety in Africa and progress towards attaining Abuja safety targets. The Symposium:

- a) Noted that, currently, the available data from ACI, IATA and ICAO, indicate that implementations progress is off the milestones and timelines set for the Abuja Safety Targets
- b) Recommended sharing of information through RASG-AFI on a structured methodology as best practice to accelerate States' effective implementation (EI) improvement throughout the Region.
- c) Shared experience on addressing, mitigating and resolving significant safety concerns (SSCs) for the benefit of air transport development
- d) Highlighted collaboration through ROST missions between the regional offices on one hand and prioritization of States on the other, to remove existing SSCs, attain EI 60% for 50% of AFI States by end of 2015.
- e) Underscored the importance of ACI/ICAO collaboration through APEX Review, in engaging airport operators and States in setting the basis for airport certification. It recognized that funding through Regional Economic Communities (RECs) would accelerate the preparation processes to certification.
- f) Acknowledged that IATA assistance through in-house workshops increases the preparedness of targeted AFI-based airlines to pass IOSA. IOSA, as a requirement in line with the Abuja Ministerial Conference, will not only reinforce the safety oversight system of the States but also will help to increase the number of IOSA registered airlines in the AFI region.
- g) Shared experience on how to overcome the challenges faced by aspiring Airlines for the first time IOSA registration.
- h) Highlighted the importance of implementing SARPs through industry standard operating procedures (SOPs) to improve safety and maintain IOSA registration.

7.5 Session 2 focused on RASG-AFI Safety Enhancement Initiatives and Contributions from Partners. The Symposium:

- a) Noted that RASG-AFI has identified and developed relevant projects to reduce runway safety related accidents and assist States in AIG implementation while

contributing to improvement of overall effective implementation of a State's safety oversight system;

- b) Shared experience on the establishment of Runway Safety Teams (RSTs) at international airports with a view to reversing the trends of runway related accidents. Benefits and challenges in the establishment of RSTs and sharing of bests practices to implement AIG in AFI aviation environment were also highlighted; and
- c) Urged States to implement PBN Implementation in order to reduce unstable approaches and enhance runway safety.

7.6 Session 3 focused on understanding Controlled Flight into Terrain (CFIT). The Symposium:

- a) Acknowledged operating PBN RNP AR procedure as a means of improving safety while enhancing efficiency; and
- b) Discussed CFIT prevention from an air navigation service provider (ANSP) perspective.

7.7 Session 4 focused on understanding Loss of Control In-Flight (LOC-I). The Symposium:

- a) Underscored the need to engage operators in LOC-I programme implementation;
- b) Highlighted the importance of providing LOC-I preventive skills through pilot training; and
- c) Noted the requirements for Regulatory Oversight with respect to LOC-I.

7.8 Session 5 focused on State oversight responsibilities and ICAO State Safety Programme. The Symposium:

- a) Was briefed on Annex 19 SARPs and the use of ICAO tools for successful implementation of State safety programmes (SSPs);
- b) Discussed the benefits and challenges of safety management systems (SMS) implementation by the service providers; and
- c) Emphasized the need to improvement of communications, navigation, surveillance and air traffic management (CNS/ATM) systems in Africa.

7.9 Session 6 focused on Safety in AFI region – Opportunities and Challenges for enhancement. The Symposium:

- a) Urged States to establish and strengthen autonomous CAAs and human resources development;
- b) Shared experience of separation between regulatory and service provision functions;
- c) Shared experience on aerodrome certification in the Region;
- d) Noted EASA involvement and participation in enhancing aviation safety in Africa;
- e) Noted positive developments concerning the Ebola Virus Disease (EVD) outbreak thanks to ICAO/WHO cooperation, regional initiatives through RECs, ICAO support at Headquarters and regional level; and
- f) Encouraged States to join and support the ICAO Collaborative Arrangement for the Prevention and Management of Public Health Events in the Aviation Sector (CAPSCA).

7.10 The Symposium developed a Collaborative Implementation Programme and agreed on the way forward and the need to re-engage States and stakeholders in the implementation of the

Abuja Safety Targets in coordination with the AFI Comprehensive Regional Implementation Programme (AFI Plan): <http://www.icao.int/safety/afiplan/Pages/default.aspx> and the Regional Aviation Safety Group for the AFI region (RASG-AFI): <http://www.icao.int/WACAF/Pages/rasg-afi.aspx>

7.11 Participants recommended the organization of Africa Aviation Week events on a regular basis to enable the region, States, ICAO, industry and aviation partners to review progress and make recommendations for further enhancements to the aviation system through timely implementation of SARPs.

OUTCOMES OF THE SYMPOSIUM

SECOND AFRICA-INDIAN OCEAN (AFI) AVIATION SAFETY SYMPOSIUM

Maputo, Mozambique, 20 to 21 May 2015

SESSION 1

Abuja Safety Targets – Implementation/Monitoring/Follow-up

SESSION 1: – ABUJA SAFETY TARGETS - IMPLEMENTATION/MONITORING/FOLLOW-UP

1.1 Ms. Iyabo O. Sosina, Secretary General of AFCAC presented the Status of aviation safety in Africa and progress towards the attainment of the Abuja Safety Targets. During her presentation, she informed the participants about the efforts being made towards the attainment of the said targets.

1.1.1 The Secretary General called for the enhancement of safety of civil aviation in Africa through the establishment of strong aviation safety systems and challenged all aviation stakeholders and partners to work together in order to meet the deadlines set for the Abuja Safety Targets with a view to decreasing the aviation accidents and serious incidents on the continent.

1.1.2 She further informed the participants that in order to identify and monitor the existing types of safety risks and to be able to advise member States, the collection of information and data is important.

1.1.3 Furthermore, she stressed that for AFCAC to be able to effectively play its role, the requested data and information from Civil Aviation Authorities and industry is required from time to time to help populate the established table and ensure the continuous monitoring of the status of the Abuja Safety Targets.

1.1.4 The Secretary General further reported that the only available data source for Monitoring and Follow-up Mechanism on Aviation Safety Targets is the Regional Performance Dashboard on Safety, which was developed by ICAO. The Dashboard has been useful in determining in real time, the status of implementation of the Safety Targets on a regional basis. However to carry out individual assessment of African States, AFCAC still requires State-by-State information to assist in monitoring the implementation of the Abuja Safety Targets.

1.1.5 As at May 2015, only eleven (11) States namely; Burundi, Cote d'Ivoire, Ethiopia, Kenya, Gabon, Madagascar, Mali, Nigeria, South Africa, Tanzania and Togo had responded to AFCAC's request for information and data to populate the follow-up and monitoring table. However, some of the information provided by some States was incomplete.

1.1.6 She further noted that considering the number of responses received so far, it was quite difficult for AFCAC to carry out its mandate as provided by the Ministers with the resulting inability to produce any tangible results in relation to the monitoring of the activities set out in the Safety Targets.

1.1.7 The available data from ACI, IATA and ICAO, indicate that implementation progress is off the milestones and timelines set for the Abuja Safety Targets.

1.1.8 Finally, she requested States to provide the necessary information to AFCAC to enable effective monitoring of the status of the Abuja Safety Targets so as to ensure compliance with the deadlines. She thereafter opened the session for discussion by the panellists.

1.2 Mr. Maguèye Marame Ndao, Directeur Général, ANACIM, Sénégal, shared their experience on how Senegal bridged the gap within four months and achieved the Effective Implementation (EI) target of 60% in the implementation of the Critical Elements of a State Safety Oversight System.

1.2.1 He indicated that the program of activities initiated by ANACIM was based on the effective implementation of the accepted Corrective Action Plan (CAP) aimed at resolving the

deficiencies identified by the USOAP Audit of 2006 with a view to improving the overall safety oversight system in Senegal.

1.2.3 He asserted that achieving these goals was based on a number of essential elements including but not limited to Political will, focus on organizational targets on time, availability of qualified human resources in sufficient numbers, logistics and effective collaboration with the ICAO Regional Office in Dakar. According to Mr. Ndao, the amendment of the Civil Aviation Code taking into account the recommendations of the ICAO audit was given a priority.

1.2.4 He also mentioned that efforts are underway to create an independent accident investigation body. However, at this stage, they have introduced a Ministerial Decree which established an Ad hoc Committee of Inquiry under the Ministry of Transport/Civil Aviation in addition to the signing of a protocol with the Bureau d'Enquetes et d'Analyses pour la Sécurité de l'Aviation Civile (BEA) of France for the operational aspects of the established Committee.

1.2.5 According to Mr. Ndao, the USOAP National Continuous Monitoring Coordinator (NCMC) plays a crucial role in the coordination of USOAP-related activities of the different operational divisions of ANACIM as well as coordination with the airport authority and other external parties in the conduct of monitoring and supervisory activities with respect to safety oversight of civil aviation.

1.2.6 Mr. Ndao further informed the participants that they have created an Internal Operational Committee responsible for monitoring the implementation of the CAP based on the USOAP Audit of 2006 in preparation for future USOAP CMA Activities. The role of the Internal Committee is to ensure the proper execution of specific tasks, including the closure of open items from the April 2006 audit.

1.2.7 In order to better guide the organization and activities of the committee to the specific objectives, each of the audit areas (LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA) has been assigned to specific individuals and/or group managers.

1.2.8 He further noted that mobilization of the available human resources and logistics have greatly assisted in the timely implementation of the CAP which was assigned to the group managers and it was decided that the majority of the work must be completed by local inspectors to help ensure sustainability of the system.

1.2.9 He expressed his appreciation and thanks to the Regional Director and Experts of the WACAF Office who have shown great willingness and have provided the needed assistance to ANACIM within the framework of the Regional Office Safety Team (ROST) both during the ROST mission, 17 to 28 February 2014 and afterwards.

1.2.10 He concluded that the effective implementation of the USOAP CAP requires the establishment of a continuous improvement process appropriately supported by human, financial and logistical resources and with clear objectives and outcomes.

1.3 In his intervention, Mr. Mahmoud Elhassan, Representative of Sudan to the ICAO Council shared Sudan's experience in the resolution of the Significant Safety Concern (SSC) for the benefit of air transport development in Sudan.

1.3.1 According to Mr. Elhassan, the Government of Sudan was fully committed to resolving the SSC in the shortest possible time and the Competent Minister was also fully engaged in ensuring that appropriate actions were taken to resolve the SSC and improve the overall EI. Based on this all required resources were placed at the disposal of the Civil Aviation Authority of Sudan.

1.3.2 He explained that one of the first actions taken was to reorganize the safety department of the Civil Aviation Authority by bringing all safety-related responsibilities and accountability under one roof. The Standards and Safety Management Office (SSMO) was immediately established and was tasked to resolve the SSC within 3 to 4 months. To enable SSMO achieve its goals, SCAA recruited experts in the relevant technical areas through ICAO as well as through individual contracts.

1.3.3 A detailed CAP specifically aimed at providing a timely resolution of the SSC was developed and extensive training program was launched and recertification of international air operator certificate (AOC) holders was carried out.

1.3.4 He reported that five (5) AOC holders out of a total of eighteen (18) were found suitable to meet the requirements to conduct international operations while the remaining AOC holders were downgraded to operate domestic operations and they were required to submit the required documents for recertification. In the end, only four of the five air operators were recertified to conduct international operations. One operator was suspended and the AOC denied because the review and inspections revealed that the air operator was faced with economic challenges that may impact on the safety and efficiency of its operations.

1.3.5 Within 4-months, the SCAA satisfactorily resolved the SSC and invited ICAO for another validation mission; the second ICVM was conducted from 15 to 19 May 2012 by an ICAO safety Oversight Team that included a Safety Expert from EASA.

1.3.6 The ICAO Team conducted a thorough examination of the evidences from the implementation of the CAP and was satisfied with the results of this verification.

1.3.7 The overall LEI was further lowered to 26%. Today, three years down the line, some of the operators certified at the time are no longer operating as they could not survive the stringent process of surveillance bearing in mind the resources required to maintain an acceptable level of operations and maintenance control.

1.3.8 Mr. Elhassan summarized the lessons learned from their experience as follows:

- Commitment of the Political Leadership;
- Realistic approach and mobilization of resources;
- Rational planning;
- Learning from global and regional expert experiences;
- Cooperation with States and International and Regional Organizations; and
- Sustainability.

1.4 Mr. Gaoussou Konate, Deputy Regional Director, ICAO WACAF re-echoed the fact that States are behind the timelines defined for the attainment of the Abuja Safety Targets and shared some of the strategies that have been adopted by ICAO Regional Offices in Dakar and Nairobi in order to successfully meet the Safety Targets set by the African Ministers.

1.4.1 Strategy # 1 – Acknowledgement - There is a need to acknowledge the current safety oversight capacities in relation to the level of activities in the State. This acknowledgement naturally leads us to the second strategy.

1.4.3 Strategy # 2 – Prioritization - In line with the principles of safety management and risk analysis, level of aviation activity versus the State capacity for safety oversight, ICAO Regional

Offices have developed a priority list of States. This list includes all unresolved SSCs (currently 5 in ESAF and 1 in WACAF).

1.4.4 States considered as 'low hanging fruits' including those that have achieved at least 40% EI (10 more States required to achieve this objective related to having half of the African States to attain 60% EI and above by the end of 2015);

1.4.5 Strategy # 3 – Assignment of Champions

- Under the ROST, each State has been assigned a Focal Point called Champion within the Regional Offices;
- To promote effective coordination and mobilization of resources in the delivery of support to States.

1.4.6 Strategy # 4 – Increased coordination with Monitoring and Oversight (MO) Section at ICAO Headquarters.

- Encourage States to accept/request cost recovery ICVMs to gain maximum EI improvement;
- Combination of Offsite validations and/or ICVMs as considered feasible.

1.4.7 Strategy # 5 – Arranging Working Visits to the Regional Offices by State Officials

- Invite NCMCs on a week-long working visit to Regional Offices to develop CAPs and/or upload evidences unto the CMA OLF.

1.5 Mr. Michael Rossell, Deputy Director General of ACI World, spoke about the ACI Airport Excellence (APEX) in Safety Programme. This was a peer review process to help airports identify and mitigate safety vulnerabilities and enhance compliance. It was based on ICAO Annex 14 and 19, and ACI best practices, and was conducted by teams comprising staff from ACI, ICAO, partner airports and regulators acting in their capacity building roles. The on-site assessments were followed by mentoring, training and best practice exchanges to help airports address gaps.

1.5.1 APEX reviews had been carried out around the world, both at large and small airports, in both developed and developing countries. In Africa, most reviews had been done in the western region, of which Maputo International Airport was a beneficiary. ACI currently has capacity to carry out 20 APEX reviews each year with the current demand/requests having exceeded the capacity to supply. Therefore, ACI has been continually looking for new partners to support APEX teams with the possibility of leading some of the APEX reviews. Both host airports and safety partners have expressed appreciation and highlighted the benefits from the APEX review process including staff development opportunities.

1.5.2 Furthermore, another unexpected benefit of the APEX in Safety Programme had been that airports were able to make substantial progress towards certification in accordance with the approved ICAO process.

1.5.3 Mr. Rossell informed the participants that ACI is continuously developing the Programme and is always open to new ideas for improvement. ACI is also expanding the APEX process into other areas, and currently developing a pilot project for APEX in Security, with the first pilot project due to be conducted in Mauritius later in the year.

1.6 Ms. Tanja Grobotek, Regional Director, Africa - Safety and Operations, IATA, highlighted the in-house workshops conducted by IATA as assistance made to increase the preparedness of targeted AFI-based airlines to pass IOSA. She recalled that IOSA, being a State requirement in line with the Abuja Ministerial Conference, will not only reinforce the safety oversight capacities of States but also will help to increase the number of IOSA registered airlines in the AFI region.

1.6.1 She stated that IATA's objective was to educate States as Regulators on how they can utilize IOSA as a complementary tool supporting their Regulatory capabilities. She reported that in 2012 IATA provided training to 40 States/Regulators that identified 150 AOC holders in the AFI region. The IATA Review of AOC assessed that 30 operators did qualify to meet the IOSA requirements. She further mentioned that this has resulted in Rwanda Air and Equajet to be on IOSA registry.

1.6.2 According to Mr. Grobotek, four operators made it to the IOSA registry without assistance (Air Zimbabwe; Aerocontractors; Midwest; Alexandria Air and Syphax) Three additional operators have undergone audit and are in the process of closing their findings.

1.6.3 She also mentioned the low progress in having a greater number of IOSA-registered operators due to delays in scheduling audits after having received the training. She informed the participants about the solution proposed by IATA for those operators that do not qualify for IOSA. According to her, IATA has developed a solution which is aimed at operators with aircraft below 5700kg as well as for operators who do qualify for IOSA but need a "stepping stone". The new programme is referred to as ISSA (IATA Standard Safety Assessment) which is mainly aimed at smaller operators.

1.6.4 She concluded by urging States to provide necessary support when it comes to IOSA and ensure that it is part of Regulatory Requirement since it is already part of Abuja Outcome endorsed by AU

1.7 Mr. Jean-Paul Nyirubutama, Deputy Chief Executive Officer, RwandAir Ltd shared his airline's experience on how to overcome the challenges faced by aspiring airlines for the first time to be part of IOSA registered airline. Mr. Jean-Paul listed chronologically the steps taken for IOSA certification from 2011 to December 2014 as follows:

- From 2011, with the expansion of the fleet, RwandAir decided to undergo IOSA certification;
- Internal IOSA preparation and gap analysis started in mid-2012. The need for training was identified; and RwandAir applied for the IOSA Implementation Training Program from IATA. Three workshops were conducted by qualified IATA Instructors;
- Objective of the first workshop: IOSA Requirements and information related to the IOSA standards; Objective of the second workshop: Conduct of a detailed gap analysis. Development and implementation of an action plan; and Objective of the third workshop: Conduct of a mock audit by IATA, which consisted of evaluation of the IATA Standard and Recommended Practices (ISARPs) implementation;
- Closure of the findings from the mock audit; and finalizing all documentation (RwandAir Manuals);
- Implementation phase of ISARPs by IOSA Team Members (Post holders);
- Following the third IATA workshop, RwandAir gained confidence in the approach for IOSA certification, having accumulated knowledge and skills in the preparation for the IOSA Audit;

- IOSA Audit was performed from 9 to 13 June 2014 and the Audit Report came with six findings and fourteen observations;
- Closure and acceptance of the corrective actions of the findings and observations were completed within four months (from June to October 2014);
- IATA Vice President for Africa delivered the IOSA Certificate on December 2014; and RwandAir finally applied for IATA membership in January 2015 and RwandAir officially became an IATA Member on 27 March 2015.

1.8 In his presentation, Mr. Alex Avedi, Head of Quality, Safety & Environment Kenya Airways, indicated that Kenya Airways was the first airline in the Africa region to obtain IOSA Certification in 2005 and has since maintained its certification through strict observance of the following actions:

- Establishment of a dedicated department;
- Management commitment
- Establishment of various safety Committees
- Implementation of Safety Management System/ Quality Management Systems etc.;
- Maintaining a Pool of auditors and conducting various audits;
- Assistance to other airlines
- Engagement with the National regulatory authority, the CAA; and
- Expanding network.

1.8.1 In relation to the topic of his intervention 'Living SARP's implementation through SOPs to improve safety and maintain IOSA registration' Mr. Avedi, reiterated the importance of Senior Management's commitment to safety, because safety is their bread and butter. He mentioned that they have created a dedicated Quality Department, which reports directly to the CEO, to handle audits in the organization. According to him, since Kenya Airways flies to over 50 international destinations they get audited quite frequently by different Civil Aviation Authorities and the feedback from these audits are used to improve their processes.

1.8.2 He also mentioned that the Kenyan Civil Aviation Authority has tightened the AOC renewal process, which has also assisted them in maintaining a high safety standard.

1.8.3 In conclusion he mentioned that holding IOSA certification facilitated Kenya Airways in becoming the first and only African carrier to join the Sky Team.

1.9 Ms. Iyabo Sosina, Secretary General of AFCAC, in her capacity as the moderator of this session thanked the panellists for their insightful deliberations and interventions. She reiterated the level of progress made towards meeting the Abuja Safety targets and highlighted the need to keep the momentum.

1.9.1 She encouraged States to cooperate in the provision of the necessary information to AFCAC to enable the effective monitoring of the status of the Abuja Safety Targets so as to ensure compliance with the deadlines.

— — — — —

**ATTACHMENT
PRELIMINARY OUTCOMES**

Reference	Topic ⁱ	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
1.1	<ul style="list-style-type: none"> - To accelerate EI improvement throughout the AFI Region. - Mitigating and resolving SSC for the benefit of air transport development 	To remove existing SSCs, attain EI 60% for 50% of AFI States by end of 2015.	Yes	In accordance with the Abuja Safety Target dates (all African States by the end of 2017)	Increased collaboration between States and ICAO Regional Offices.	STATES/ICAO/AFCAC / AUC and other partners
1.2	ACI & ICAO to engage airport operators and States in setting the basis for airport certification	Increased number of certified Airports		In accordance with the Abuja safety Target dates (by the end of 2015.)	Intensified collaboration between States and ICAO Regional Offices.	ACI/ ICAO AFCAC and other partners
1.3	IATA to educate States/Regulators on how to use IOSA as complimentary tool supporting their Regulatory capabilities to increase the number of IOSA registered airlines in the AFI region.	Increased number of IOSA registered airlines in the AFI region.		In accordance with the Abuja Target set dates (by the end of 2015)	IATA to continue to provide IOSA training. State Legislation to be revised to incorporate IOSA requirements Deploy ISSA who do not qualify for IOSA	IATA/ ICAO/ AFCAC and other partners
1.4	<ul style="list-style-type: none"> - Implementation of ICAO Plans of action according to the 5-point strategy. - (Acknowledgement, Prioritization, Assignment of Champions, Increased coordination with Monitoring and Oversight (MO) Section at ICAO HQ and Working Visits to the Regional Offices by State Officials 	Improved safety oversight systems		In accordance with the Abuja Safety Target dates (by the end of 2015-2017)	Continued collaboration between States and ICAO Continued direct assistance to States (ROST missions and training)	STATES/ICAO/ AFCAC/

SECOND AFRICA-INDIAN OCEAN (AFI) AVIATION SAFETY SYMPOSIUM

Maputo, Mozambique, 20 to 21 May 2015

SESSION 2

RASG-AFI Safety Enhancement Initiatives and Contributions from Partners

SESSION 2: RASG-AFI SAFETY ENHANCEMENT INITIATIVES AND CONTRIBUTIONS FROM PARTNERS

2.1 Mr. Ibrahima Wane shared the experience of Aeroports du Senegal (ADS) in the establishment of the Runway Safety Team at Leopold Sedar Senghor International Airport in Dakar, Senegal. He reported that a 14-member Runway Safety Team was established at ADS following a two day training provided by the RST GO-TEAM.

2.1.1 According to Mr. Wane, the establishment of a Runway Safety Team provides a platform for effective collaboration between aviation stakeholders within the State in addition to providing a forum for sharing of experiences and best practices.

2.2 The benefits and challenges of establishment of Runway Safety Teams from a regulatory point of view were provided by Mr. Gabriel Lesa, Director General of Zambia CAA.

2.2.1 Mr. Lesa pointed out that the primary role of every Runway Safety Team at each International Airport in Zambia was to develop an action plan for runway safety, advise management on potential runway safety issues and recommend strategies for hazard removal and mitigation of the residual risk. These strategies are developed premised on obtaining local realities or combined with benchmarked information.

2.2.2 He pointed out that Runway Safety is an integral component of Aviation Service Provider's Safety Management System (SMS) designed to enhance and support integrated local runway safety structured approach at each airport.

2.2.3 He further informed the participants that RSTs serve as an excellent tool for managing runways safety related risk identified by the service provider programs. Change Management, is also emphasized in the service provider SMS process to evaluate possible risks posed by operational changes resulting from RST proposed corrective actions.

2.2.4 According to Mr. Lesa, the frequency of RST meetings is relative to the realities in the operational environment at each individual airport. He outlined the Terms of Reference (TORs) of the RST as follows:

- Review compliance of the aerodrome with ICAO SARPs in Annex 14;
- Monitor runway incidents by type, severity and frequency of occurrence;
- Identify risk factors and local issues;
- Identify particular locations where risks exist ("hot spots");
- Identify problems in daily operations;
- Solicit assistance, advice and peer reviews, by safety experts from within the industry e.g., ACI;
- Contribute to active development of solutions to these issues;
- Ensure that the best possible solution is implemented;
- Disseminate information on developed solutions to stakeholders;
- Initiate a comprehensive safety-awareness campaign to ensure that all stakeholders' staff are aware of safety issues; and
- As part of individual Service Provider's SMS's Proactive Processes, learning the lessons from other incidents.

2.2.5 He concluded by highlighting the challenges in the establishment and effective operation of RSTs as follows:

1. Gaps in knowledge of the members;
2. Frequent changes to the composition of the team;
3. Slow development of a just culture;
4. Challenges with effective documentation of safety information;
5. Lack of adherence to the schedule of meetings;
6. Training costs for all new members;
7. Team building challenges.

2.3 Ms. Boni Dibate, Director, Africa Affairs at the Civil Air Navigation Services Organization gave a presentation entitled 'Implementation to seek reduction of unstable approaches' with a focus on implementation of Performance Based Navigation (PBN). She gave a brief introduction of CANSO as an organization with a global voice on air traffic management whose members support more than 85 percent of the world's air traffic. She informed the participants that CANSO was founded in 1997 and is headquartered in the Netherlands with 84 full members and 81 Associate members.

2.3.1 According to Ms. Dibate, air traffic management is affected by several factors including traffic growth, new technologies, enhanced information management, new airspace users, changing ANSP business models and demand to improve efficiency and reduce costs.

2.3.2 Notwithstanding, CANSO, in line with the objectives and priorities of ICAO, has equally identified PBN implementation as a high priority for its member States. In addition to the conduct of seminars and workshops, CANSO has developed a Best Practice Guide to support the implementation of PBN. She highlighted the fact that the PBN Guide specifically addresses issues related to knowledge, regulations, fleet equipage, resources and training.

2.3.3 She further informed the participants that in order to facilitate the PBN implementation, CANSO has formed a PBN Sub-Group that has conducted a survey of its members to identify the primary concerns of ANSPs with respect to PBN implementation.

2.4 Summary of Discussions

2.4.1 The moderator of this session, Mr. Zakhele G. Thwala, Acting Chairman of RASG-AFI and Deputy Director of Civil Aviation at the Department of Transport, South Africa gave a brief summary of the presentations and discussions that followed.

2.4.2 The discussions focus on runway safety as an integral component of Aviation Service Provider's safety management systems (SMS). The Symposium recognized the importance of runway safety programme to enhance and support integrated local runway safety structured approach at each airport.

2.4.3 In this regard, runway safety teams (RSTs) established in accordance with the guidance provided in the ICAO Runway Safety Team Handbook, serve as an excellent tool for managing runway safety related risk identified by the service provider programmes. The need for strong commitment by States and organizations involved, as well as close cooperation among all stakeholders to achieve the implementation of on-going enhancement initiatives, learning from the

examples shared during the Symposium. The contribution of the ACI Airport Excellence (APEX) safety reviews was also recognized.

2.4.4 The Symposium highlighted the operational, safety and environmental benefits attached to PBN implementation, and noted the activities initiated by the Civil Air Navigation Services Organization (CANSO) in 2012, and guidance material developed to assist its members with PBN implementation. Key implementation issues addressed by CANSO include: knowledge, regulations, fleet equipage, resources and training of personnel. The importance of the African Flight Procedure Programme (AFPP) to progress PBN implementation in the AFI Region was also underscored.

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

— — — — —

**ATTACHMENT
PRELIMINARY OUTCOMES**

Reference	Topic ¹	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
2.1	Runway Safety	Runway Safety Teams established at airports	Technical and Financial		Implement ACI Airport Excellence (APEX) Reviews Conduct Runway Safety Team (RST) Go-Team Visits Conduct training, workshops & assistance activities	- States - ICAO ROs - RASG-AFI - Industry
2.2	Runway Safety	PBN procedures	African Flight Procedure Programme (AFPP)	December 2016	Implement PBN procedures	- States - ICAO - AFI FPP - Industry
2.3	Runway Safety	PBN procedures	Technical and Financial		Share information & guidance material related to PBN implementation	- States - ICAO - Industry
2.4	Establishment of autonomous CAAs	Autonomous CAA	Technical and Financial	Urgent	Engage Heads of State/ Government Ministers	ICAO
2.5	Runway Safety	Increased Runway Safety	Technical and Financial	Urgent	Coordinate regional initiatives	- States - ICAO - Industry
2.4	Establishment of autonomous CAAs	Autonomous CAA	Technical and Financial	Urgent	Engage Heads of State/ Government Ministers	ICAO
2.5	Runway Safety	Increased Runway Safety	Technical and Financial	Urgent	Coordinate regional initiatives	- States - ICAO - Industry
2.6	Runway Safety	PBN Plans and operational procedures	Technical and Financial	Urgent	Address Runway Safety, LOC-I and CFIT challenges	- States - ICAO - AFI FPP - Industry
2.7	Runway Safety	Effective PBN operations	Technical and Financial	Urgent	Share information & guidance material related to PBN implementation	- States - ICAO - AFI FPP - Industry
2.8	Runway Safety	Safety reports & Resolution of safety concerns	Technical and Financial	Urgent	Support AFI ATS Incidents Analysis Group (AIAG)	- States - ICAO ROs - Industry
2.9	Runway Safety	Conducive Regulatory Framework	Technical and Financial	According to Abuja safety targets	Implement Abuja safety targets related to runway safety	States

¹ The topic should be linked to:

- i) RASG-AFI Safety enhancement initiatives including projects that have been developed to improve aviation safety culture of African aviation service providers; or
- Industry efforts towards reduction of accidents/incidents;
- ii) Programme of activities under the AFI Plan 2015.

SECOND AFRICA-INDIAN OCEAN (AFI) AVIATION SAFETY SYMPOSIUM

Maputo, Mozambique, 20 to 21 May 2015

SESSION 3

Session 3 Understanding Controlled Flight into Terrain (CFIT)

SESSION 3: UNDERSTANDING CONTROLLED FLIGHT INTO TERRAIN (CFIT)

3.1 The session was moderated by Mr. Chamsou Andjorin Director, Africa and the Middle East - Aviation Safety, BOEING who made a presentation on CFIT.

3.1.1 Mr. Chamsou Andjorin, with the aid of a presentation that had graphic displays of CFIT accidents based on empirical statistics, discussed the definition of CFIT and cited the one by IATA that defines CFIT as "In-flight collision with terrain, water, or obstacle without indication of loss of control". In addition, he reviewed the causal factors of CFIT accidents, including human factors, violations and errors by both aircrew and Air Traffic Control (ATC). Specific aspects discussed, included:

- Situational awareness
- False ATC assumptions
- ATC monitors the airplane's position on radar
- ATC is responsible for terrain clearance
- Failure to adhere to landing minimums
- Altimeter-setting errors
- Perform proper EGPWS recovery procedure
- Language difficulties
- ATC Communications
- Poor CFIT training.
- Lack of cross checking, crew coordination, or cooperation - CRM
- Violating procedures
- Poor SOP adherence
- Approach procedures - misinterpreted
- Crew complacency
- Weather

3.1.2 Furthermore, he discussed various mitigation measures against CFIT accidents. First, adherence to standard operating procedures (SOPs), including use of current charting, language proficiency, altimetry settings, elimination of circling approaches, RNP approaches, centralized safety function, and flight standards. Second, aircraft equipment, including EGPWS, Vertical Situation Display (VSD), Dual FMC / GPS, and use of Auto flight (Vertical Speed mode) and TERR mode. Third, use of Flight Safety Foundation CFIT Checklist. Lastly, implementation of Performance-Based Navigation (PBN)

3.2 Mr. Blessing Kawai, Safety Officer, IATA, discussed various approaches including the need to implement Approach procedures with Vertical Guidance (APV) as a means to mitigate Controlled Flight into Terrain (CFIT) related accidents. He intimated that implementation of approach procedures with Vertical Guidance (APV) helps to achieve more stabilized approaches especially at airports with more risk in as far as surrounding terrain is concerned.

3.3 Mr. Hein Reid, Senior Manager – Operations North, ATNS discussed CFIT with special emphasis of an ANSP perspective. He discussed a specific scenario in which the South African Civil Aviation Authority (SA CAA) approved and published RNP AR procedures in 2014. The procedure was operator specific, required stringent licensing requirements, approach specific, on board equipment specific, crew specific and specified operational experience. Increasingly, the approach was adopted by other operators. However, he concluded his discussion with parting thoughts and caution that the introduction of the top end of advancement in navigation methodologies are challenging and are not necessarily the solution to all ills in ATM.

3.4 Mr. Harry Nelson, Executive Operational Advisor to product safety, AIRBUS with the aid of a presentation that had graphic displays of CFIT accidents based on empirical statistics representation of Yearly fatal accident rate per million flights from 1968 to 2013, recognized that Safety had significantly improved over the years that showed a drastic decrease. Coincidentally, the period under review was characterized by increasing significant evolution in aircraft technology. Beginning with the *“First Generation Early commercial jets”* in 1960’s, through the *“Second Generation More integrated Auto Flight system”*, then the *“Third Generation glass cockpit and FMS”* to the current *“Fourth Generation Fly-by-wire with flight envelop protection”*. He asserted that the EGPWS / TAWS introduction, together with RNP approach introduction, changes in NPA’s, reduction in circling and improvements in training coincided with a reduction of CFIT accidents. He concluded that the improved technology addresses CFIT through the combination of TAWS, improved navigation performance, glass cockpit/FMS equipped aircraft and precision based approach.

3.4.1 Mr. Harry Nelson also highlighted the apparent causes and effects relationship by observing that technological solutions to date had attacked two areas, namely last line of defense (A *“Reason barrier”*) and improving situational awareness. He, however, noted that future work should emphasize the need to understand root causes and to deal more with the disease and less the symptoms because many of the causes could be common to other issues.

3.4.2 Mr. Harry Nelson concluded his discussion by singling out three key messages. First, avoidance, including the need to know when CFIT accidents are likely to occur and what to do to avoid them (most likely during descent, approach and go around phases of flight), higher risks associated with non-precision approaches, descending into mountainous or hilly terrain and circling approaches. Second, recognition, including the need to know what to look for as one approaches CFIT conditions, changes from the briefed plan, increases in crew workload, fatigue driven deterioration in performance, non-standard procedures, no call outs, failure to respond in a timely way, changing the plan without discussion and changes from the expected weather. Lastly, recovery, including *“acknowledging and accepting”* the imminent CFIT situations and then taking immediate action when either the crew recognize that they are at risk of a CFIT or a TAWS or GPWS warning sounds, stay calm and taking recovery action immediately.

**ATTACHMENT
PRELIMINARY OUTCOMES**

Reference	Topic ²	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
3.1	Awareness	Raise awareness on CFIT	Tool kits	Continuous	Presentations at workshops and Seminars	ICAO, IATA, OEMs
3.2	SOPs	Airlines establish flight crew Standard Operating Procedures (SOP's) that fit that operator's particular operation		End 2015	Survey of Operators	IATA, AFRAA
3.3	CFIT Training	Guidance material on CFIT avoidance, recognition and recovery strategies	Small team to write	End Oct 2015	Research current material available Write new material for possible inclusion in a later workshop	OEMs with IATA and ICAO
3.4	Aircraft Equipage	Install and use Terrain Awareness and Warning System (TAWS) equipment, such as enhanced ground proximity warning systems (EGPWS)	Technical (Service bulletins) Financial (\$)	2017	Implement OEM SBs	IATA, AFRAA, OEM
3.5	Precision-like approaches	Develop and deploy PBN R-NAV and Required Navigational Performance (RNP) approach procedures to lower approach minima	Training support	2017	Develop applicable procedures, Implement applicable SBs	ANSPs, IATA, OEMs, ICAO

² The topic should be linked to:

- iii) The RASG-AFI Emerging Safety Issue (ESI) with a practical example of effective implementation of a CFIT safety enhancement initiative aimed at improving safety whilst promoting efficiency; or
- iv) Programme of activities under the AFI Plan 2015.

SECOND AFRICA-INDIAN OCEAN (AFI) AVIATION SAFETY SYMPOSIUM

Maputo, Mozambique, 20 to 21 May 2015

SESSION 4

Session 4 Understanding Loss of Control In-Flight (LOC-I)

SESSION 4: UNDERSTANDING LOSS OF CONTROL IN-FLIGHT (LOC-I)

4.1 Mr. Harry Nelson, Executive Operational Advisor to Product Safety – Experimental Test Pilot, AIRBUS moderated interventions and discussions during this session. The speakers were from IATA, Kenya CAA and ICAO.

4.2 Mr. Kevin Hiatt, Senior Vice President, Safety and Flight Operations, IATA gave a presentation on how to engage operators in LOC-I program implementation.

4.3 Summary on the Regulators view on providing LOC-I preventive skills through pilot training was provided by Capt. Joe Mutungi, Director of Aviation Safety and Security Regulation, Kenya CAA.

4.4 Capt. Mostafa Hoummady, Manager, Global Aviation Training at ICAO delivered a presentation on Regulatory Oversight with respect to LOC-I.

4.5 Summary of Discussions

4.5.1 The symposium noted that though safety has improved over the years, loss of Control In-Flight is the No. 1 cause of fatalities in Aviation. During this session, it was discussed what to do to avoid loss of control, how to recognize when one approaches to such condition and the required actions to be taken when it happens during operation.

4.5.2 The symposium also informed that the current developments and measures took by the industry to mitigate this challenge, Loss of Control In –Flight. The IATA UPRT manual was identified as one of the positive development. It was also noted that the European airlines and commercial business jet operators are required to implement UPRT provisions by April 2016.

4.5.3 Furthermore, the symposium noted that a good foundation in developing a well-established capacity of training is a key component of permanent solution leading to reduction of accidents resulting from loss of control in flight aircraft upset. This has to be started very early in training of a pilot with clear demonstration of its significance in safety and consequences of lack of it.

4.5.4 The proposed training should concentrate on the possible cause of LOC-I such as human factors, environmental and technical issues. The considered humble matters like presence of mind in undertaking familiar activities involving the environment (all-inclusive of many features) is a good way example of LOC-I training.

4.5.5 Training planning will not be complete without looking at personnel to conduct the training. There must be set standards for expected trainers, equipment to be used in conducting such training for delivery of the expected results. The world environment and technology is changing very first and therefore the training programs require continuous review in order to keep them relevant.

4.5.6 Apart from training, it was highlighted that implementing and updating the regulatory environment on areas related to approval of pilots training, training devices and programmes, Qualification of instructors, Oversight PEL and OPS and continuous surveillance are important regulatory issues to be considered seriously to mitigate the challenge related to Loss of Control. In addition the meeting informed some of ICAO standards and guidance materials that assist States to develop/ revise regulations to oversight and mitigate challenges related LOC-I.

4.5.7 All the presentations of this session are found in the following link www.icao.int/ESAF/AFI-Aviation-week

**ATTACHMENT
PRELIMINARY OUTCOMES**

Ref.	Topic ³	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
4.1	Regulatory oversight	LOC-I oversight of Pilot Training	TBD by the State depending on the complexity of their system and number of airlines	Ref	- Revise regulations - Train PEL and OPS inspectors - Revise Oversight processes, procedures taking into account new LOC-I training needs	States
4.2	Regulatory Oversight	Training in LOC-I for crew	Training material and instructors	Urgent	Provide guidance to States for implementation	Regional Offices
4.3	PEL and Annex 6 Compliance	Training in LOC-I for crew	Training material and instructors	Very urgent	- Revise regulation equipment - Train instructors - Identify appropriate Training - Continuously evaluate success	State
4.4	Cooperation with partner organizations	Conduct LOC-I Regional workshops	Industry team to develop LOC-I Toolkit Workshop delivery team	End 2015	- Write the workshop plan - Develop presentation material : Key messages, delivery style (audio, video, Power point etc.) - Develop “leave behind” guidance material - Deliver workshop	IATA/ICAO/ Local Offices
4.5	Upset prevention and recovery manual	UPR manual	Airline working group input to approve / finalize the draft	End Jun 2015	- Final comment - Publication	IATA / Local Regulators
4.6	Parts of the Upset and prevention manual	Inclusion in the Regulatory UPRT provisions	TBD by the State depending on the complexity / EASA example	TBD	Inclusion in Regulation	States

³ The topic should be linked to:

- v) The RASG-AFI Emerging Safety Issue (ESI) with a highlight on the benefits of implementation of LOC-I safety enhancement initiative from regulator and service providers perspective whilst defining their respective contributions; or
- vi) Programme of activities under the AFI Plan 2015.

4.7	LOC-I Training	Improve training on LOC-I to include Upset situations in Recurrent Training	Management Support Correctly motivated And knowledgeable instructors Appropriate tools with which to train	Urgent to start then: Ongoing recurrent programme	<ul style="list-style-type: none"> - Ensure Management support within the airline - Train instructors - Include HF expertise - Seek out best practice and share it 	Airlines supported by ICAO and IATA
-----	----------------	---	--	---	--	-------------------------------------

SECOND AFRICA-INDIAN OCEAN (AFI) AVIATION SAFETY SYMPOSIUM

Maputo, Mozambique, 20 to 21 May 2015

SESSION 5

State Oversight Responsibilities and ICAO State Safety Program

SESSION 5: STATE OVERSIGHT RESPONSIBILITIES AND ICAO STATE SAFETY PROGRAM SAFETY

5.1 Mr. Barry Kashambo, Regional Director, ICAO ESAF anchored the presentations made by speakers from ICAO ANC, ASECNA and US FAA. He underscored that attainment of a 60% rate of Effective Implementation of the Critical Elements of a State Safety Oversight system is a pre-condition for SSP implementation by States.

5.2 Mr. Farid Zizi gave a presentation on the implementation of Standards and Recommended Practices (SARPs) contained in Annex 19 and the available ICAO tools to ensure effective implementation. He started by providing a brief background leading up to the applicability of Annex 19 on 14 November 2013.

5.3 He explained the development of Annex 19 including the recommendations of the Safety Management Panel (SMP) for the following:

- Consolidation of existing and overarching SARPS from Annexes 1, 6, 8, 11, 13 & 14;
- Elevation of the four components of the SSP framework to a Standard;
- State safety oversight provisions broadened to all service providers;
- Safety data collection, analysis and exchange provisions transferred from Annex 13;
- SMS framework now applies to the design and manufacture of aircraft.

5.4 He presented the layout and content of the new Annex and provided a brief summary of each the contents found in each Chapter:

- Chapter 1 and 2 deals with Definition and Applicability respectively;
- Chapter 3 contains provisions related to the State's safety management responsibilities under the State safety programme. This chapter consolidates existing SSP requirements from Annexes 1, 6, 8, 11, 13 and 14.

5.5 He informed the participants that the four components of the SSP Framework were elevated to requirements and included in the corresponding Chapter 3 Standard. The result being that all SSPs will necessarily include the following four components: State safety policy, State safety risk management, State safety assurance and State safety promotion. The 11 underlying elements of the SSP framework remained as guidance in an Attachment to Annex 19.

5.6 He advised the Symposium that the Panel also recommended a change to the requirement for States to achieve an acceptable level of safety performance (ALoSP). The new recommendation is for States to achieve what is now known as an acceptable level of safety performance, indicating a conceptual change that links the requirement to specific safety indicators and measurable safety targets.

5.7 As part of the SSP, States require all aviation service providers to implement safety management systems – this is consistent with the existing requirement. In addition, the Panel decided that the components and elements of the SMS Framework are to become applicable to design and manufacturing organizations as well as the other service providers. This decision was necessary as the SMS Framework has not been included in Annex 8 due to questions regarding its application to design and manufacturing organizations.

5.8 Finally, Chapter 3 includes a new Standard, requiring States to implement safety oversight systems and this Standard is linked to Appendix 1 of the new Annex.

5.9 Mr. Zizi informed the participants that the Panel will consider two future work items to determine the relationship between the State safety programme (SSP) and safety oversight systems to ensure harmonization and to eliminate any overlap or redundancies. In addition, the Air Navigation Commission has requested that the Panel consider development of emergency response requirements for States as part of their SSP.

5.10 Chapter 4 contains provisions related to safety management systems (SMS). First, the new Annex transferred the existing provisions in Annexes 1, 6, 8, 11 and 14 requiring the establishment of safety management systems according to the SMS Framework. While there are editorial modifications required due to the consolidation of these requirements into a single Annex, the existing requirements remain essentially unchanged.

5.11 In addition, the requirement for implementation of SMS by international general aviation operators is transferred from Annex 6 Part II. He highlighted the fact that general aviation operators are not classified as “service providers.” In the context of safety management, service providers are those entities for whom the SMS framework is applicable. Again, the list of service providers includes approved maintenance organizations, approved training organizations, air operators, design and manufacturing organizations, air navigation service providers and operators of certified aerodromes. He pointed out that Safety management systems implemented by general aviation operators are to be consistent to the size and complexity of their operations rather than requiring adherence to all elements of the SMS framework. This provides the necessary flexibility to reflect the wide range of operations performed by the general aviation community.

5.12 The SMS requirements in Chapter 4 are explicit regarding the acceptance of a service provider’s SMS. This is necessary to ensure that the acceptance is linked to the State or States responsible for the approval or certification of a particular service provider.

5.13 He further explained that a select number of “sector specific” SMS requirements are being retained in their original Annexes. These requirements are those that relate to a single type of service provider. For example, the original Standards in Annex 6 require air operators to implement flight data analysis programmes as part of their SMS. Since this type of programme is specific only to air operators, the FDA requirements are being retained in Annex 6, with the appropriate cross references in Annex 19.

5.14 Chapter 5 includes provisions related to the collection, protection and analysis of safety data and the exchange of related safety information. These provisions are primarily transferred from Chapter 8 to Annex 13. There have been some modifications to ensure that all State agencies with SSP responsibilities have appropriate access to safety data. In addition, there is a new Recommended Practice regarding the protection of information gleaned through safety management processes, complementing the provisions that are being retained in Annex 13 related to accident investigation records.

5.15 He emphasized the fact that the focus for the first phase of Annex 19 development was to consolidate existing provisions rather than to create new requirements with the exceptions of Appendix 1 which can be considered as new requirements related to the implementation of State safety oversight systems. These requirements are not totally new. They broaden the scope of existing requirements found in Appendices to Annex 6 that relate to the oversight of air operators.

5.16 The Annex 6 provisions have been complemented with the 8 critical elements of safety oversight found in Doc 9734, to require the oversight of all service providers, establishing a comprehensive safety oversight system. However these elements are not totally new to the States because all States have signed MoUs with ICAO introducing the use of the 8 CEs as part of the

implementation of the USOAP. He noted that all SMS Frameworks in Annexes 1, 6, 11 and 14 have been transferred to Annex 19, with a number of editorial and formatting modifications. But, the substance of the components and elements remains unchanged.

5.17 The Attachments containing the SSP Framework have also been transferred to Annex 19. Although, the 4 high level SSP components have been incorporated into the Standard in Chapter 3, for any State safety programme. Again, the SSP elements remain as guidance for the time being.

5.18 He further informed participants that the Safety Management Manual (SMM) has been restructured according to the SSP and SMS frameworks and includes detailed guidance and tools developed for SSP and SMS implementation. ICAO has given a high priority to the finalization and translation of this document. Further information is available on the Safety Management website.

5.19 He advised that the initial gap analysis questions checklist (Table 4-A7-1 of Appendix 7 to Chapter 4 of SMM) could be used as a template to conduct the first step of a gap analysis. This format will provide an initial indication of the broad scope of gaps and hence overall workload to be expected. This initial information should be useful to senior management in anticipating the scale of the SSP implementation effort and hence the resources to be provided.

5.20 With respect to Safety Management Training programme, he informed the participants on the development of a Standardized Training Package with blended learning approach: Online + Classroom:

- Online – enables participants to receive homogeneous instruction on safety management
- Classroom activity – safety management concepts applied through a case study similar to the one they will face in the workplace

5.3 Mr. Wodiaba Samake, Head of Department of Safety, Security, Quality and Environment at ASECNA shared the Organization's experience, as a Service Provider, in the implementation of SMS with the associated challenges and benefits.

5.3.1 According to Mr. Samake, since 2012, ASECNA has adopted an integrated management system (IMS) comprising Safety, Security, Quality and Environment in order to pool and effectively manage resources. Nevertheless, Safety has been given the number one priority although Quality is supported organization wide. He informed the participants that the ASECNA IMS became effective in 2014 and he recounted the main challenges as documentation, personnel training, change management and availability of qualified human resources.

5.3.2 He confirmed that ASECNA SMS has been audited by external organizations and found compliant with Annex 19 requirements. With regards to QMS, on the other hand, he said particular emphasis was placed on meteorological services and aeronautical information management with a view to ensure compliance with the relevant ICAO provisions.

5.3.3 He further pointed out the benefits of IMS implementation which has proven effective with the increased identification of safety occurrences thus confirming the establishment of a strong safety culture within the organization. He, however, noted that although the number of reported incidents has increased, the actual number of airport incidents has reduced by 34% during the same period.

5.3.4 He reiterated that ASECNA will continue its efforts to enhance safety performance particularly in States with increased levels of traffic. He expressed hope that performance of the necessary corrective and preventive actions will permit the attainment of a good level of maturity of

the system. He concluded that ASECNA is available to provide any assistance and/or cooperation with other ANSPs.

5.4 The US FAA presentation was delivered by Mr. Rafael "Q" Quezada, International Programs Officer, Europe, Africa, and Middle East Group. The presentation entitled Communication, Navigation, Surveillance and Air Traffic Management in Africa highlighted the various FAA initiatives in Africa with a focus on the provision of assistance in Air Navigation, Aviation Safety, Aerodromes and Training during 2014/2015.

5.4.1 Mr. Quezada gave an overview of the FAA Air Traffic AFI Strategy on CNS and Civil/Military Integration. He informed the participants that the main areas of interest of the FAA lie in CPDLC (AIDC/OLDI Links) and VHF for Communication and ADS-C and Radar for Surveillance.

5.4.2 He laid out the FAA African Air Navigation Initiatives which aims to achieve a seamless Global Operations, Harmonization of Standards for CNS/ATM Technologies and Procedures, Targeted Outreach and Technical and Operation Support. He expressed the FAA desire to build upon the work already done by IATA and ICAO in this respect.

5.4.3 He concluded with a brief summary on the Next Steps for FAA involvement in Africa particularly with respect to FAA participation in CNS/ATM Groups in Africa, conduct of the GOLD Workshop and establishment of a Central Monitoring Agency.

**ATTACHMENT
PRELIMINARY OUTCOMES**

Ref.	Topic⁴	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
5.1	Safety Oversight Responsibilities and ICAO State Safety Program	Evolution from Safety Oversight to Safety Management with enhanced level of safety	Technical and Financial	Abuja safety targets Dec. 2015	Conduct Gap Analyses	- ICAO - CAAs - Industry - RSOOs
5.2	Safety Oversight Responsibilities and ICAO State Safety Program	Enhanced level of safety	Technical and Financial	Dec. 2015	Finalization and delivery of SSP-SMS training courses	ICAO
5.3	Safety Oversight Responsibilities and ICAO State Safety Program	Increased cooperation between ANSPs as well as with partners in the area ANS	Technical and Financial Resources	Continuous	Establish contacts with each other; Exchange of experiences and best practices between ANSPs	ANSPs

⁴ The topic should be linked to:

- vii) Assistance to the States in the establishment or strengthening of State safety oversight system, an RSOO or RAIO;
- viii) Assistance to States in resolving identified deficiencies within a reasonable time frame, including the implementation of ICAO Plans of Action;
- ix) Enhancement of aviation safety culture of African aviation service providers; or
- x) Programme of activities under the AFI Plan 2015 following the expansion of the Plan.

During Day two of the Symposium, Mr. Barry Kashambo, Regional Director, ICAO ESAF welcomed those participants that missed the events of the Symposium on the first day. He introduced Mr. Margus Rahuoja, Director for Aviation, European Union to deliver his presentation on "*The European Union and aviation safety in Africa: a partnership progressing*"

SECOND AFRICA-INDIAN OCEAN (AFI) AVIATION SAFETY SYMPOSIUM

Maputo, Mozambique, 20 to 21 May 2015

SESSION 6

Safety in AFI region – Opportunities and Challenges for enhancement

SESSION 6: SAFETY IN AFI REGION – OPPORTUNITIES AND CHALLENGES FOR ENHANCEMENT

6.1 Mr. Joao dos Reis Monteiro, President and Director General of AAC Cape Verde/Cape Verde CAA delivered a presentation on the Cape Verdean experience with respect to strengthening and autonomization of civil aviation authorities (CAAs) and human resource development strategy.

6.1.1 He gave a brief synopsis of aviation activities in Cape Verde and how these activities are organized between the regulator and the service providers including air operators, aerodrome operators and the air navigation service provider. He informed the participants that Cape Verde CAA enjoys full autonomy and therefore manages its own resources with no Government interference. He said that, in terms of its regulatory functions/activities, the CAA reports directly to Parliament whilst its financial management activities are reported to a Court of appointed Auditors. He further informed the participants that Cape Verde has certified all four of its international aerodromes and that plans are underway for the certification of domestic aerodromes as well. In the area of air navigation, the ANSP operates the Sal Oceanic FIR with modern systems and infrastructure manned by qualified technical personnel.

6.1.2 In the area of safety oversight, Mr. Monteiro informed the participants that since 1999, Cape Verde has been through a series of USOAP audits the last of which was conducted in 2009 with an overall EI rate of 73.8%.

He also highlighted the main focus of the CAA HR development strategy including:

- Recruitment and selection policy that ensures the availability of highly qualified technical personnel that meet the requirements of professionalism and integrity required to advance the mission and strategy of the AAC;
- Qualifying policy that allows the alignment of individual goals to those of the institution and translating into high rates of productivity;
- Remuneration policy and incentives of the attraction and retention of potential human resources; and
- Promotion of an organizational culture focused on excellence, innovation and rigor.

6.1.3 He concluded by highlighting the role of training in HR development in CV CAA which provides a source of motivation whilst improving individual and group performance.

6.2 Separation of functions between regulator and service provider was presented by Mr. Joseph Kiptoo Chebungei of Kenya Civil Aviation Authority.

6.2.1 Mr. Chebungei provided the background to the amalgamation of functions between the regulator and the service providers and the challenges being faced by most States in the effective execution of the regulatory role. He pointed out that most CAAs, ANSPs, and Airports were initially established as one entity within the mainstream civil service of Governments. This, according to him, was gradually followed by the establishment of autonomous institutions with their own governance and financing structures although the regulatory and service provisions functions continue to be under the same roof.

6.2.2 He pointed out that there is a general trend towards separation of functions driven by the need to establish a system that guarantees independence of the decisions by the regulator and the need to fulfil international requirements.

6.2.3 He further discussed the separation options including functional delinking and organizational delinking with a detailed analysis of each of the options with a focus on the following issues strategic, legal and institutional framework, organization and human resources and most importantly finance.

6.2.4 He concluded by sharing the Kenya experience with a view to highlight the challenges and the lessons learnt. He advised the participants that in the selection of the best option for decoupling, attention should be paid to the ability to ensure access to sustainable sources of funding, national strategy and the ability to maintain compliance with the requirements.

6.3 Colonel Dokisime Gama Latta shared the Togolese experience in Aerodrome Certification with Lomé International Airport as a case study.

6.3.1 Mr. Latta gave a brief history of the Lomé international airport certification project in response to Annex 14 requirements and Abuja aviation safety targets with regards to certification of all international aerodromes by the end of 2015.

6.3.2 According to Mr. Latta, as part of the preparations for the certification exercise, Togo has consequently amended its regulatory framework to meet the ICAO Standards and Recommended Practices (SARPs). In addition, ANAC Togo called for external expertise from other States and international organizations comprising COSCAP UEMOA and APEX to assist with the certification process.

6.3.3 Mr. Latta further informed the participants that a Working Group comprising ANAC and all concerned stakeholders was put in place since 2005 for the purpose of safety and environmental impact analysis. He said the certification programme has been developed and the process started in 2011 with a pre-application by the airport operator (SALT).

6.3.4 He confirmed that the Aerodrome certification process followed approved procedures developed on the basis of the Togolese regulations with the issuance of a temporary Aerodrome certificate back in 2013. The final certificate was issued in 2014 with some exemptions granted on the basis of agreed mitigating actions for the identified safety risks.

6.3.5 He attributed the main difficulties encountered in the process to the existence of several actors involved the operation of the airport. He confirmed that these challenges were eventually surmounted through different MoUs signed in order to facilitate coordination and exchange of safety information.

6.4 Mr. Wilfred Shultze, Flight Standards Director of EASA delivered the presentation on EASA participation to the enhancement of aviation safety in Africa.

6.4.1 He informed the participants that EASA has various technical assistance activities and that it is currently implementing three EU funded projects in the AFI region. According to him, the Technical Assistance approach is based on the principles of needs of the beneficiaries, support and

no interference, coordinating and learning from partners, the beneficiary is the natural leader, and focus on organizational and institutional aspects. He reiterated the EASA commitment for the long term, cooperation for sustainable solutions, collaborative approach and coordination of activities with beneficiaries.

6.5 Although not directly related to the topic of this session, Mr. Prosper Zo'o Minto'o, ICAO Deputy Regional Director, Eastern and Southern African Office, Nairobi delivered a presentation on the Collaborative Arrangement for the Prevention and Management of Public Health Events in the Aviation Sector (CAPSCA), and updated the participants on the status of EVD and the positive trends reported thanks to combined efforts by ICAO, WHO, States, and regional economic communities (RECs), among others.

6.6 Summary of discussions

6.6.1 The Symposium agreed on the need for:

- a) asserting political will at State level;
- b) seeking partnerships among aviation stakeholders;
- c) acquiring technical expertise using available tools (e.g. SCAN network or industry tools such as IOSA to complement regulatory oversight);
- d) exercising pragmatism through solutions that are commensurate to the size of the industry and affordable to the rest of the economy; and
- e) ensuring clarity of focus, wide enough to include important issues.

6.6.2 States were reminded that though No Country Left Behind, the state of the art is continuously evolving, hence the need for continual adjustments of national/regional aviation programmes and plans. As such, efforts should be sustained because Africa deserves an air transport system commensurate with its position as an emerging global centre of growth.

6.6.3 In conclusion, the Director, Air Navigation Bureau of ICAO recalled the role of ICAO to assist the aviation community to understand how their needs can be met within the global framework, and with the appropriate framework of Africa, and indicated that he was confident that, working together with all of the stakeholders represented in the Symposium, the region will continue to make progress towards the achievements of the established safety objectives.

— — — — —

**ATTACHMENT
PRELIMINARY OUTCOMES**

Ref.	Topic⁵	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
6.1	Strengthening of the Autonomous CAAs and HR development	Performance in safety oversight (EI≥60)	Technical and financial resources	10 States by 2015 All African States by 2017		
6.2	Separation of functions between regulator and service providers	Independent regulatory authority			Implementation options: Functional separation Complete separation	
6.3	Collaboration among relevant stakeholders	Aerodrome certification	APEX Review RST			

⁵ The topic should be linked to:

- xi) Assistance to the States in the establishment or strengthening of State safety oversight system, an RSOO or RAIO;
- xii) Assistance to States in resolving identified deficiencies within a reasonable time frame, including the implementation of ICAO Plans of Action;
- xiii) Enhancement of aviation safety culture of African aviation service providers; or
- xiv) Programme of activities under the AFI Plan 2015.

SECOND AFRICA-INDIAN OCEAN (AFI) AVIATION SAFETY SYMPOSIUM

Maputo, Mozambique, 20 to 21 May 2015

SESSION 7

Safety Symposium Outcomes and Moving Forward

SESSION 7: – SAFETY SYMPOSIUM OUTCOMES AND MOVING FORWARD

7.1 The Second AFI Safety Symposium noted the following main goals of the Comprehensive Regional Plan for Safety in Africa (AFI Plan) in 2015:

- a) Achievement by at least 50% of African States of the 60% average of effective implementation (EI);
- b) Resolution of all outstanding SSCs, and
- c) Implementation of the 2015 Training Programme as adopted by the AFI Plan Steering Committee, including the training activities of the relevant partners.

7.1.1 It was noted that 18 African States have achieved an EI of 60% and above; and that 31 States have signed specific Action Plans with ICAO to implement their corrective action plans (as of May 2015). Seven (07) unresolved SSCs in 6 States are yet to be addressed.

7.1.2 The Symposium panels and sessions involved States, ICAO, AFCAC, EU, EASA, EU, US FAA and Industry (ACI, ASECNA, AATO, CANSO, IATA, Airbus, Boeing, airlines, airports, and air navigation service providers).

7.2 Session 1 focused on the Status of aviation safety in Africa and progress towards attaining Abuja safety targets. The Symposium:

- a) Noted that, currently, the available data from ACI, IATA and ICAO, indicate that implementations progress is off the milestones and timelines set for the Abuja Safety Targets;
- b) Recommended sharing of information through RASG-AFI on a structured methodology as best practice to accelerate States' effective implementation (EI) improvement throughout the Region;
- c) Shared experience on addressing, mitigating and resolving significant safety concerns (SSCs) for the benefit of air transport development;
- d) Highlighted collaboration through ROST missions between the regional offices on one hand and prioritization of States on the other, to remove existing SSCs, attain EI 60% for 50% of AFI States by end of 2015;
- e) Underscored the importance of ACI/ICAO collaboration through APEX Review, in engaging airport operators and States in setting the basis for airport certification. It recognized that funding through Regional Economic Communities (RECs) would accelerate the preparation processes to certification;
- f) Acknowledged that IATA assistance through in-house workshops increases the preparedness of targeted AFI-based airlines to pass IOSA. IOSA, as a requirement in line with the Abuja Ministerial Conference, will not only reinforce the safety oversight system of the States but also will help to increase the number of IOSA registered airlines in the AFI region;
- g) Shared experience on how to overcome the challenges faced by aspiring Airlines for the first time IOSA registration;
- h) Highlighted the importance of implementing living SARPs through industry standard operating procedures (SOPs) to improve safety and maintain IOSA registration.

7.3 Session 2 focused on RASG-AFI Safety Enhancement Initiatives and Contributions from Partners. The Symposium:

- a) Noted that RASG-AFI has identified and developed relevant projects to reduce runway safety related accidents and assist States in AIG implementation while contributing to improvement of overall effective implementation of a State's safety oversight system;
- b) Shared experience on the establishment of Runway Safety Teams (RSTs) at international airports with a view to reversing the trends of runway related accidents. Benefits and challenges in the establishment of RSTs and sharing of bests practices to implement AIG in AFI aviation environment were also highlighted; and
- c) Urged States to implement PBN Implementation in order to reduce unstable approaches and enhance runway safety.

7.4 Session 3 focused on Understanding Controlled Flight into Terrain (CFIT). The Symposium:

- a) Acknowledged operating PBN RNP AR Procedure as a means of improving safety while enhancing efficiency; and
- b) Discussed CFIT prevention from an air navigation service provider (ANSP) perspective.

7.5 Session 4 focused on Understanding Loss of Control In-Flight (LOC-I). The Symposium:

- a) Underscored the need to engage operators in LOC-I programme implementation;
- b) Highlighted the importance of providing LOC-I preventive skills through pilot training; and
- c) Noted the requirements for Regulatory Oversight with respect to LOC-I.

7.6 Session 5 focused on State Oversight Responsibilities and ICAO State Safety Programme. The Symposium:

- a) Was briefed on Annex 19 SARPs and the use of ICAO tools for successful implementation of State safety programmes (SSPs);
- b) Discussed the benefits and challenges of safety management systems (SMS) implementation by the service providers; and
- c) Emphasized the need to improvement of communications, navigation, surveillance and air traffic management (CNS/ATM) systems in Africa.

7.7 Session 6 focused on Safety in AFI region – Opportunities and Challenges for enhancement. The Symposium:

- a) Urged States to establish and strengthen Autonomous CAAs and human resources development;
- b) Shared experience of separation between regulatory and service provision functions;
- c) Shared experience on aerodrome certification in the Region;

- d) Noted EASA involvement and participation in enhancing aviation safety in Africa;
- e) Noted positive developments concerning the Ebola Virus Disease (EVD) outbreak thanks to ICAO/WHO cooperation, regional initiatives through RECs, ICAO support at Headquarters and regional level; and
- f) Encouraged States to join and support the ICAO Collaborative Arrangement for the Prevention and Management of Public Health Events in the Aviation Sector (CAPSCA).

7.8 The Symposium developed a Collaborative Implementation Programme and agreed on the way forward and the need to re-engage States and stakeholders in the implementation of the Abuja Safety Targets.

7.9 Participants recommended the organization of Africa Aviation Week Events on regular basis to enable the region, States, ICAO, industry and aviation partners to review progress and make recommendations for further enhancements to the aviation system through timely implementation of SARPs.

7.10 The outcomes of the symposium which consolidate the preliminary outcomes of the six leading sessions are presented in the attachment.

— — — — —

Ref.	Topic ⁱⁱ	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
SESSION 1						
1.1	- To accelerate EI improvement throughout the AFI Region. - Mitigating and resolving SSC for the benefit of air transport development	To remove existing SSCs, attain EI 60% for 50% of AFI States by end of 2015.	Yes	In accordance with the Abuja Safety Target dates (all African States by the end of 2017)	Increased collaboration between States and ICAO Regional Offices.	STATES/ICAO/AFCAC / AUC and other partners
1.2	ACI & ICAO to engage airport operators and States in setting the basis for airport certification	Increased number of certified Airports		In accordance with the Abuja safety Target dates (by the end of 2015.)	Intensified collaboration between States and ICAO Regional Offices.	ACI/ ICAO / AFCAC and other partners
1.3	IATA to educate States/Regulators on how to use IOSA as complimentary tool supporting their Regulatory capabilities to increase the number of IOSA registered airlines in the AFI region.	Increased number of IOSA registered airlines in the AFI region.		In accordance with the Abuja Target set dates (by the end of 2015)	IATA to continue to provide IOSA training. Deploy ISSA who do not qualify for IOSA	IATA/ / AFCAC and other partners

Ref.	Topic ⁱⁱ	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
1.4	- Implementation of ICAO Plans of action according to the 5-point strategy. - (Acknowledgement, Prioritization, Assignment of Champions, Increased coordination with Monitoring and Oversight (MO) Section at ICAO HQ and Working Visits to the Regional Offices by State Officials	Improved safety oversight systems		In accordance with the Abuja Safety Target dates (by the end of 2015-2017)	Continued collaboration between States and ICAO Continued direct assistance to States (ROST missions and training)	STATES/ICAO/ AFCAC/
SESSION 2						
2.1	Runway Safety	Runway Safety Teams established at airports	Technical and Financial		Implement ACI Airport Excellence (APEX) Reviews Conduct Runway Safety Team (RST) Go-Team Visits Conduct training, workshops & assistance activities	- States - ICAO ROs - RASG-AFI - Industry
2.2	Runway Safety	PBN procedures	African Flight Procedure Programme (AFPP)	December 2016	Implement PBN procedures	- States - ICAO - AFI FPP - Industry
2.3	Runway Safety	PBN procedures	Technical and Financial		Share information & guidance material related to PBN implementation	- States - ICAO - Industry
2.4	Establishment of autonomous CAAs	Autonomous CAA	Technical and Financial	Urgent	Engage Heads of State/ Government Ministers	ICAO
2.5	Runway Safety	Increased Runway Safety	Technical and Financial	Urgent	Coordinate regional initiatives	- States - ICAO - Industry
2.6	Runway Safety	PBN Plans and operational procedures	Technical and Financial	Urgent	Address Runway Safety, LOC-I and CFIT challenges	- States - ICAO - AFI FPP - Industry

Ref.	Topic ⁱⁱ	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
2.7	Runway Safety	Effective PBN operations	Technical and Financial	Urgent	Share information & guidance material related to PBN implementation	- States - ICAO - AFI FPP - Industry
2.8	Runway Safety	Safety reports & Resolution of safety concerns	Technical and Financial	Urgent	Support AFI ATS Incidents Analysis Group (AIAG)	- States - ICAO ROs - Industry
2.9	Runway Safety	Conducive Regulatory Framework	Technical and Financial	According to Abuja safety targets	Implement Abuja safety targets related to runway safety	States
SESSION 3						
3.1	Awareness	Raise awareness on CFIT	Tool kits	Continuous	Presentations at workshops and Seminars	ICAO, IATA, OEMs
3.2	SOPs	Airlines establish flight crew Standard Operating Procedures (SOP's) that fit that operator's particular operation		End 2015	Survey of Operators	IATA, AFRAA
3.3	CFIT Training	Guidance material on CFIT avoidance, recognition and recovery strategies	Small team to write	End Oct 2015	- Research current material available - Write new material for possible inclusion in a later workshop	OEM's with IATA and ICAO
3.4	Aircraft Equipage	Install and use Terrain Awareness and Warning System (TAWS) equipment, such as enhanced ground proximity warning systems (EGPWS)	Technical (Service bulletins) Financial (\$)	2017	Implement OEM SBs	IATA, AFRAA, OEM
3.5	Precision-like approaches	Develop and deploy PBN R-NAV and Required Navigational Performance (RNP) approach procedures to lower approach minima	Training support	2017	Develop applicable procedures, Implement applicable SBs	ANSPs, IATA, OEMs,

Ref.	Topic ⁱⁱ	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
SESSION 4						
4.1	Regulatory oversight	LOC-I oversight of Pilot Training	TBD by the State depending on the complexity of their system and number of airlines	Ref	- Revise regulations - Train PEL and OPS inspectors - Revise Oversight processes, procedures taking into account new LOC-I training needs	States
4.2	Regulatory Oversight	Training in LOC-I for crew	Training material and instructors	Urgent	Provide guidance to States for implementation	ICAO Regional Offices
4.3	PEL and Annex 6 Compliance	Training in LOC-I for crew	Training material and instructors	Very urgent	- Revise regulation - Identify appropriate Training equipment - Train instructors - Continuously evaluate success	State
4.4	Cooperation with partner organisations	Conduct LOC-I Regional workshops	Industry team to develop LOC-I Toolkit Workshop delivery team	End 2015	- Write the workshop plan - Develop presentation material: Key messages, delivery style (audio, video, Power point etc.) - Develop "leave behind" guidance material - Deliver workshop	IATA/ICAO/ Regional Offices
4.5	Upset prevention and recovery manual	The manual	Airline working group input to approve / finalise the draft	End Jun 2015	- Final comment - Publication	IATA / Regional Regulators
4.6	Parts of the Upset and prevention manual	Inclusion in the Regulatory UPRT provisions	TBD by the State depending on the complexity / EASA example	TBD	Inclusion in Regulation	States
4.7	LOC-I Training	Improve training on LOC-I to include Upset situations in Recurrent Training	Management Support Correctly motivated And knowledgeable	Urgent to start then: Ongoing recurrent programme	- Ensure Management support within the airline - Train instructors - Include HF expertise	Airlines supported by ICAO and IATA

Ref.	Topic ⁱⁱ	Deliverable	Resources Needed	Completion Deadline	Main Actions	Lead(s) Responsible
			instructors Appropriate tools with which to train		- Seek out best practice and share it	
SESSION 5						
5.1	Safety Oversight Responsibilities and ICAO State Safety Program	Evolution from Safety Oversight to Safety Management with enhanced level of safety	Technical and Financial	Abuja safety targets Dec. 2015	Conduct Gap Analyses	- ICAO - CAA's - Industry - RSOOs
5.2	Safety Oversight Responsibilities and ICAO State Safety Program	Enhanced level of safety	Technical and Financial	Dec. 2015	Finalization and delivery of SSP-SMS training courses	ICAO
5.3	Safety Oversight Responsibilities and ICAO State Safety Program	Increased cooperation between ANSPs as well as with partners in the area ANS	Technical and Financial Resources	Continuous	Establish contacts with each other; Exchange of experiences and best practices between ANSPs	ANSPs
SESSION 6						
6.1	Strengthening of the Autonomous CAAs and HR development	Performance in safety oversight (EI≥60)	Technical and financial resources	10 States by 2015 All African States by 2017		
6.2	Separation of functions between regulator and service providers	Independent regulatory authority			Implementation options: <ul style="list-style-type: none"> • Functional separation • Complete separation 	
6.3	Collaboration among relevant stakeholders	Aerodrome certification	APEX Review RST			

LIST OF PARTICIPANTS

ANGOLA

E-mail: chaquimone.gumbe@inavic.gv.ao

1. Alfredo Futi
Vogal do Conselho Directivo
Ministerio dos Transportes
Instituto Nacional da Aviacao Civil
Rua Miguel de Melo No 96 6 Andar
Cell +244 914323165/921631412
Tel: +244 222335936 / 338/596
Email: alfredo.futi@inavic.gv.ao
2. Francisco Neto
Aviation Security and Facilitation
Division Director
National Institute of Civil Aviation
Luanda, Angola Miguel De Melo Street
N°6-6th Floor, Luanda-Angola
Tel: +244 222335936
Tel: francisco.cristovao@inavic.gv.ao
3. Orlando Hilario Mateus
Inspector of Air Navigation
National Institute of Civil Aviation
Luanda, Angola Miguel De Melo Street
N°6-6th Floor, Luanda-Angola
Tel: +244 92 395 3162
E-mail: Orlando.mateus@inavic.gv.ao
4. António Gourgel
Air Flight Inspector/Safety
National Institute of Civil Aviation
Luanda, Angola Miguel De Melo Street
N°6-6th Floor, Luanda-Angola
Tel: +244 222335936
E-mail : antonio.gourgel@inavic.gv.ao
5. Ezequiel Cortêz
Training Manager/Human Assistant
National Institute of Civil Aviation
Luanda, Angola Miguel De Melo Street
N°6-6th Floor, Luanda-Angola
Tel: +244 994488943
E-mail: ezequiel.cortez@inavic.gv.ao
6. Chaquimone Gumbe
Aviation Security Inspector
National Institute of Civil Aviation
Luanda, Angola Miguel De Melo Street
N°6-6th Floor, Luanda-Angola
Tel: +244 222335936

7. Jose Manuel Maluenga Zau
Primeiro Seretario
Embaixada da Republica de Angola
Em Mocambique
Av. Kenneth Kaunda, 763
Maputo, Mozambique
Tel:+258 21493928
E-mail: jomazau@hotmail.com
8. Avibal Vitoa Samuel
Directeur Reformado
Escola Nacional de Aeronautico
Avenida de Angola 3550
Tel : +258823068010
E-mail: asamuel@enaeronautica.edu.mz

BELGIUM

9. Elodie Reuge
EC FWC Project Manager
Ala netglobal Consortium
39 Rue Montoyer
Brussels, Brussels 1000
E-mail: er@alanetglobal.com
10. Branko Koclovski
Team Leader
11. Ted Sheldia
Evaluation Expert

BOTSWANA

12. Geoffrey Moshabesha
Chief Executive Officer
Botswana Civil Aviation Authority
Plot # 61920 Letsema Office Park
Gaborone, Botswana
Tel: +267 368 8263
E-mail: gmoshabesha@caab.co.bw
13. Jacob Thebenala
Aviation head
Ministry of Transport and
Communications
P. BAG 00414
Gaborone, Botswana

Tel: +267 362 5550
E-mail: thebenala@gov.bw

14. Edison Mmerekhi
Chief Aviation Security Officer,
Operations
Botswana Civil Aviation Authority
P. O. Box 250
Tel: +267 73850603
E-mail: emmerekhi@caab.co.bw

15. Onalenna Sechele
Deputy PS (Transport)
Ministry of Transport and
Communications
P/Bag 00414, Gaborone
Botswana
Tel: +267 361 2086
E-mail: osechele@gov.bw

16. Moses Leselwa
Manager, Aviation Security
Botswana Civil Aviation Authority
P. O. Box 250
Tel: +267 73008084
E-mail : mleselwa@caab.co.bw

BURKINA FASO

17. Moumouni Dieguimde
Representative of Burkina Faso on the
Council of ICAO
Suite 15.30
999, Boulevard Robert-Bourassa
Montréal, QC, H3C 5J9, Canada
Tel : + 1514-954-8325
E-mail: burkinafaso@icao.int

18. Sinare Alidou
AVSEC Expert
Agence Nationale de l'Aviation Civile
(ANAC)
1158 Ouagadougou, Burkina Faso
E-mail: amasod_II@yahoo.fr

19. Bakyono Zephirin Leandre
Principal Inspector
Agence Nationale de l'Aviation Civile
(ANAC)
1158 Ouagadougou, Burkina Faso
Tel: +226 76661466
E-mail:
leandre.bakyono@anacburkina.org

20. Donmeguile Joachim Meda
Counsellor
01 BP 1158 Ouagadougou 01
E-mail: saminedon@gmail.com

CAMEROON

21. Pierre Tankam
Director General
Cameroon Civil Aviation Authority
Quartier Mvan, Base 101
Tel: +237 222 3030 90
E-mail: pierre.tankam@ccaa.aero

22. Englebert Zoa Etundi
Representative of Cameroon to ICAO
999, Boulevard Robert-Bourassa
Montréal, QC, H3C 5J9, Canada
Tel: +1 514 954 8361
E-mail: cameroon@icao.int

23. Paule Assoumou Koki
Director of Aviation Safety
Cameroon Civil Aviation Authority
Quartier Mvan, Base 101
Tel: +237 222 3030 90
E-mail: paule.assoumou.koki@ccaa.aero

CAPE VERDE

24. João dos Reis Monteiro
Presidente o Conselho de Administração
Agencia de aviação Civil de Cabo Verde
Av. Cidade de Lisboa, nr.34, Ilha de
Santiago, Cabo Verde
Cidade da Praia, cidade da Praia 371
Tel : +238 9912804
E-mail : joao.r.monteiro@acivil.gov.cv

CHAD

25. Moustapha Abakar
Deputy General Manager
Autorité de l'aviation civile
BP 96, Ndjamená, Tchad
Tel : +23566215786
E-mail : ibnsarsar@yahoo.fr
26. Abdelkadre Mahamat Seid
Air Safety Director
Autorité de l'aviation civile (ADAC)
BP 96 N'Djaména
Republic of Chad
Tel: +23566753650
E-mail: abdelseid@yahoo.fr

27. Mandandy Igritouin
 Chef de Division Formation AVSEC et
 Contrôle Qualité
 Autorité de l'aviation civile (ADAC)
 Blvd Mahamat Khamiss Djongos
 BP 96 N'djamena, Chad
 Tel : +235 6627 32 27
 E-mail : igritouin@yahoo.fr

CHINA

28. Chunyu Ding
 Alternate Representative
 Mission of China to ICAO
 999, Boulevard Robert-Bourassa
 Montréal, QC, H3C 5J9, Canada
 Tel: +1 514-954 8313
 E-mail : cding@icao.int

29. Jianxin Liao
 Business Representative
 China Airport Construction Group
 Corporation
 Civil Aviation R&D Building, Wuwei Rd.
 Capital Airport, Beijing, China
 Beijing 100621
 Tel: +8615901113898
 E-mail: liaojianxin@caccintl.com.cn

30. Zengyue Lin
 Officer
 Civil Aviation Administration of
 China 155 Dongsixi Road
 Beijing
 Tel: +861064091668
 E-mail: zy_lin@caac.gov.cn

31. Gagan Bhatia
 Security & Safety controller
 Air China
 Room no 9, mahipalpur New Delhi
 New Delhi, Delhi 110037
 Tel: 77273527
 E-mail: ggn_klmbhatia@yahoo.co.in

CONGO

32. Basile Ngoyo Adouma
 Conseiller au Transport aérien du Ministre
 d'Etat
 Ministère des transports, de l'aviation
 civile et de la marine marchande du Congo
 BP 2148 Brazzaville – Congo
 E-mail : basilengoyo@yahoo.fr

33. Symphorien Montole
 Directeur de la Sécurité Aérienne
 Agence Nationale de l'Aviation Civile
 BP 128
 Brazzaville, Congo
 E-mail : montolesymphs@yahoo.fr

34. Antoine Itoumba Seba
 Attaché au transport aérien
 Ministère des transports, de l'aviation
 civile et de la marine marchande
 BP 2148 Brazzaville – Congo
 E-mail : itoumbaseba@gmail.com

CÔTE D'IVOIRE

35. Jacques Djagouassi
 Conseiller Technique de Directeur General
 Autorité nationale de l'aviation civile
 07 BP 148 Abidjan 07
 E-mail: jacques.djagouassi@anac.ci

36. Rosalie Kondo
 Deputy Director of Control, S security and
 Facilitation
 Autorité nationale de l'aviation civile
 Abidjan, Côte d'Ivoire
 Tel: +225 04 107 911
 E-mail: Kondorosalie@anac.ci

DEMOCRATIC REPUBLIC OF THE CONGO

37. Jean Mpunga Tshiumba
 Directeur General
 DRC CAA
 41, Avenue Comité Urbain
 Kinshasa/Gombe, DRC
 Tel : +243815019663
 E-mail : jeantshiumba@gmail.com

38. Celine Masengu Kabwika
 Assistante du Directeur General
 DRC CAA
 41, Avenue Comité Urbain
 Kinshasa/Gombe
 DRC
 Tel: +243998203002
 E-mail : celine_masengu@yahoo.fr

39. Ernest Ilang'Ikwa Bonkanya
 Conseiller Aéronautique

Ministère des Transports et Voies de
Communications
41, Avenue Comité Urbain
Kinshasa/Gombe
DRC
Tel. +243979583033
E-mail: eilangikwa@yahoo.fr

DJIBOUTI

40. Said Nouh Hassan
Secrétaire Général du Ministère
De l'Équipement et des Transports
Tel:+253 21358206
E-mail : saidnouh@yahoo.fr
41. Ainanche Said Chireh
Chef de Service Administratif Civil
Aviation Authority of Djibouti
Aéroport International de Djibouti
Djibouti BP 2609
Tel : (00253)21340151
E-mail : ainanchesaida@gmail.com

ETHIOPIA

42. Debasu Bayleyegn
Communication Manager
Civil Aviation Authority
Addis Ababa, Ethiopia
Tel: +251 911 015 532
E-mail: bayleyegn100@gmail.com
43. Tefera Mekonnen Tefera
Aviation Consultant
Civil Aviation Authority
Addis Ababa, Ethiopia
Tel : +251 913 535 934
E-mail : tefmekonnen@yahoo.email

EQUATORIAL GUINEA

44. Simeon Esono Alogo Nchama
Deputy General Manager
Ceiba Intercontinental
Avda Presidente Nasser
Malabo, Bioko Norte
Tel: +240 555016551
E-mail: esancha@hotmail.com
45. E. Esono Anguesomo
Representative of Equatorial Guinea to
ICAO
999 Robert-Bourassa Blvd.
Montreal, Quebec H3C 5J9

Tel: +514-954-5570
E-mail: eanguesomo@icao.int

46. Alejandro Ona Owono Nchama
Chef de Departement Juridique
Aeronautical Authority of Equatorial
Guinea
Tel: +240222595524
E-mail: alex.ona@hotmail.com

FRANCE

47. Charles Yvinec
Chef de la cellule régionale d'assistance à
la sûreté de l'aviation civile (CRASAC)
Ambassade de France
1 rue A. Assane Ndloye
Dakar, Sénégal
Tel: +221777400510
E-mail: yvinec.charles@numericable.fr

GHANA

48. Simon Allotey
Representation of Ghana to ICAO Council
Suite 16.05
999, Boulevard Robert-Bourassa
Montréal, QC, H3C 5J9, Canada
Tel: +1(514)9545786
E-mail: sallotey@icao.int
49. Kwadwo Abrefa Sarkodie
Regional Airport Manager, Kumasi
Ghana Airports
KA PMB 36 KIA, Accra, Ghana
Tel:+23363220 22969
E-mail: abrefa.sarkodie@gacl.com.gh

GUINEA

50. Ousmane Barry
Chef Section Aéronefs et Navigabilité
Direction Nationale de l'Aviation Civile
BP. 95 - Conakry, Guinée
Tel: +224 666 195275
E-mail: alphousba@yahoo.fr

GUINEA-BISSAU

51. João Moreira
Presidente do Conselho de Administração
da Agencia da Aviação civil
AACBG Aeroporto Internacional Osvaldo
Vieira - Bissau, Guinée- Bissau
Tel: +245 6612341

E-mail: moreirame3@yahoo.com.br

Tel: +254 722 668 250

E-mail: hmakau@kcaa.or.ke

LESOTHO

Matseliso Mabakubung Sesinyi
Air Transport Officer
Department of Civil Aviation
P.O. Box 629 Maseru
Tel: +266 5885 3885
E-mail: matselisoms@yahoo.co.uk

52. Nomawethu Dlangamandla
Assistant Airport Manager
Moshoeshoei International Airport
Maseru 0100
Tel: +26662855747
E-mail: wethutp@gmail.com

KENYA

53. Joseph K Chebungei
A.g. Director General
Kenya Civil Aviation Authority
P.O. Box 30163 - 00100
JKIA - KAA Complex
Nairobi, Kenya
Tel: +25420827556
E-mail: jkiptoo@kcaa.or.ke
54. Mugambi M'nchebere
Director
Kenya Civil Aviation Authority (East
African School of Aviation)
P.O. Box 30689-00100
North Airport Road Embakasi
Nairobi, Kenya
Tel : +254 20375
E-mail: gmugambi@easa.ac.ke
55. Reuben Lubanga
Director Air Navigation Services
Kenya Civil Aviation Authority
JKIA - KAA Complex
P.O. Box 30163 - 00100
Nairobi, Kenya 00100
Tel: +254724716363
E-mail: rlubanga@kcaa.or.ke
56. Hellen Makau
Aviation Security Inspector
Kenya Civil Aviation Authority
Airport South Road
Jomo Kenyatta international
Airport
Nairobi, Kenya

57. Joe Mutungi
Director Aviation Safety Standards and
Regulation
Kenya airports authority complex
Nairobi, Kenya
Box 30163-00100
Tel: +254 722521503
E-mail: jmutungi@kcaa.or.ke
58. Christopher Kigalo
Air Transport Officer
Kenya Civil Aviation Authority
P.O. Box 30163 - 00100
Nairobi 00100, Kenya
Tel: +254723859852
E-mail: ckigalo@kcaa.or.ke
59. Alex Avedi
Director - Safety, Security and Quality
Tel. +254-20 6422375
Mob. 0733201947
E-mail: Alex.Avedi@kenya-airways.com
60. Martin Juma
Kenya Air Ways
Country Manager
av. 24 de Julho, shopping 24, loja 24
Maputo, Mozambique
Tel: +258 3796372
E-mail: martin.juma@kenya-airways.com
61. Hugo Fumo
Sales Executive
Kenya Airways
av. 24 de Julho, shopping 24, loja 24
Maputo, Maputo
Tel: +258 849113745
E-mail: hugo.fumo@kenya-airways.com

MADAGASCAR

62. Bako Rakotoniony
Directeur de la Supervision de la Sécurité
Aviation Civile de Madagascar
13 Rue, Fernand Kasanga
Antananarivo, Madagascar
Tel : +261 3205 742 50
E-mail: bako@acm.mg
63. Francois Xavier Randriamahandry
Directeur de Cabinet

Ministère du Tourisme des transports et de
la Météorologie
Rue Jules Ranaivo Anosy 101
Antananarivo, Madagascar
Tel : +261 340 564123
E-mail : dircab@mttm.gov.mg

64. Fanja Volasoaf Rafalimanana
Directeur des Ressources Humaines
Aviation Civile de Madagascar
13 Rue Fernand Kasanga
Tsimbazaza
Tel : +261320722179
E-mail : fanja_r@acm.mg
65. Jean Baptiste Abel Rakotondrasoa
Aviation Civil de Madagascar
Chef de Departement Surete Aeroportuaire
13 Rue Fernand Kasanga
Tsimbazaza
Antananarivo, Madagascar
Tel : +261320574364
E-mail : abel_rakoto@acm.mg

MALAWI

66. Alfred Mtilatila
Director of DCA
Department of Civil Aviation
Private Bag B311
Lilongwe 3 Malawi
Tel: +26588 884 6511
E-mail: amtilatila@gmail.com
67. Dixie Kwatani
DCA Safety Manager
Department of Civil Aviation
Lilongwe 3 Malawi
Tel: +265 888 892 494
E-mail: dkwatani@yahoo.com
68. Moffat Chitimbe
Principal Secretary
Ministry of Transport & Public Works
Lilongwe 3 Malawi
Tel: + 265 1 789 071
E-mail: mjchitimbe@gmail.com

MALAYSIA

69. Yong Henet Lim
Representative of Malaysia to ICAO
Suite 16.12
999, Boulevard Robert-Bourassa
Montréal, QC, H3C 5J9, Canada

Tel: +1514 954 8061
E-mail: [ylim@icao.int](mailto:yylim@icao.int)

MALI

70. Diallo Salif
Directeur General
Agence Nationale de l'Aviation Civile
Route de l'Aéroport de Bamako-Sénou
B.P. 227
Bamako, Mali
Tel : +22376152921
E-mail : salifalice@hotmail.com
71. Mamoudou Wele
Chef du Service Inspections et Gestion de
la Sécurité
Agence Nationale De L'Aviation Civile
BP 227 Bamako, Mali
Tel : +223 76 76 2708
E-mail : mamoudouwe.wele@anac-mali.org; mamadouwele@yahoo.fr
72. Assétou Soumaré
Chef Bureau Formation et Inspection
Agence Nationale de l'Aviation Civile
BP 227 Bamako, Mali
Tel : +223 7639 04011
E-mail : astou2030@yahoo.fr

MAURITANIA

73. Mohamed Mahmoud Bouassriya
Director General
National Civil Aviation
Nouakchott 91, Mauritania
E-mail: bouassriya2m@anac.mr

MOZAMBIQUE

74. João de Abreu
CEO
Mozambique Civil Aviation Institute
Alameda do Aeroporto
Maputo, Mozambique/Maputo 227
Tel: +25821465416
E-mail: jabreu@iacm.gov.mz

75. Antonio Pinto
Representative of Mozambique to ICAO
999, Boulevard Robert-Bourassa
Montréal, QC, H3C 5J9, Canada
Tel: +1514 577 0367
E-mail : apinto@icao.int

76. Nataniel Mondlane
Chief d'Immigration à l'aéroport
Immigration Inspector Migration
Bairro 25 de Junho B Q 10 casa 34
Maputo, Mozambique
Tel : +2588202170
E-mail : natamondlane@gmail.com
77. Odete Semiao
Av. Martirs de Inhaminga nr.336
Maputo Directora Adjunta
Ministerio de Transporte e Comunicações
Maputo, Mozambique
Tel : +258 21359877
E-mail : chaemosasemiao@gmail.com
78. Olga João Matumbela
Chefe do departamento
Ministerio dos Transportes e
Comunicações
Av. Martires de Inhaminga nr.335
Maputo, Mozambique
Tel : +258 824125170
E-mail : olgamatumbela@gmail.com
79. Paul Chiobvu
LAM
Consultant ICT
27 Rua Das Palmeras Belo Horizonte
Maputo, Mozambique
Tel: +258823059135
E-mail: paul.chiobvu@lam.co.mz
80. Paulo Muxanga
Presidente o Conselho de Administração
HCB
Maputo, Mozambique
Tel: +258 25 280 212
E-mail: cas.songo@hcb.co.mz
81. Pedro Augusto Ingles
Secretário Permanente
Ministério dos Transportes e omunicações
Av. Mateus de Inhaminga nr.336
Maputo, Mozambique
Tel : +258 21359800
E-mail : mwakangua@gmail.com
82. Sara Ginabay Mussa
DAF, IACM
Alameda do Aeroporto
Maputo, Mozambique
Tel: +258826751627
E-mail: saragmussa@gmail.com
83. Sérgio Mabunda
Técnico Profissional de Administração
Pública, IACM
Alameda do Aeroporto
Maputo, Mozambique
Tel: +824313410
E-mail: mabundasergio@gmail.com
84. Silvestre Sechene
Presidente o Conselho de Administração
Linhas aereas de Moçambique
Av. Alameda do aeroporto nr.113
Maputo, Mozambique
Tel : +258 21465134
E-mail : silvestre.sechene@lam.co.mz
85. Simao Zacarias Mataruca
Director Executivo, FTC
Rua Martires de Inhaminga 337, 3 andar,
Maputo, Mozambique
Tel: +258 823 036 110
E-mail : szmataruca@yahoo.com.br
86. Stefane Domingos Macie
Oficial de Segurança
Aeoportos de Moçambique
av. acordos de Lusaka nr.3267
Maputo, Mozambique
Tel: +258828038849
E-mail: stefane.macie@aeroportos.co.mz
87. Urbano Manuel
Chief-pilot, Inter Airways
Rua Mocimboa da Praia nr 13
Malhangalene
Maputo, Mozambique
Tel: +258 823 260 840
E-mail: urbanomanuel57@gmail.com
88. Wili André Massinga
AVSEC Official, IACM
Alameda do Aeroporto
Maputo, Mozambique
Tel: +258 829772053
E-mail: wmassinga@iacm.gov.mz
89. Joaquim Fausto Naftal
Chefe Adjunto do Gabinete do Falsec
Ministerio do Interior
Alameda do Aeroporto
Maputo, Mozambique
Tel: +258 822906920
E-mail: airfalsec@gmail.com

90. José Ricardo Viegas
Consultor aeronáutico
Aeroconsult
Rua Mateus Sansão Muthemba 402
1 andar único
Maputo, Mozambique
Tel: +258 82300300
E-mail: jviegas@aeroconsultmz.com
91. Jose Salamone Cossa
Presidente o Conselho de Administração
SMS Catering
Alameda do Aeroporto Internacional
Maputo, Mozambique
Tel: +258 21465863
E-mail: jscossa@hotmail.com
92. Laurinda Francisco Gimo
International relation, MTC
AV. Martires de inhaminga
Maputo, Mozambique
Tel: +258 828793830
E-mail: laurindafrancisco@yahoo.com.br
93. Lucrécia Ndeve
Consultora
IACM
Av. Armando Tivane nr.373, 17 esq
Maputo, Mozambique
Tel: +258 823061563
E-mail: luckndeve@yahoo.com.br
94. Alberto Nhantumbo
Administrador, ADM.EP
av.acordos de Lusaka nr.3267
Maputo, Mozambique
Tel: +258 848022084
E-mail: alberto.nhantumbo@aeroportos.co.mz
95. Sérgio Hortencio Rodrigo
Vice Minister Assistant, MTC
Av Marteres de Inhaminga
Maputo, Mozambique
Tel: +258 827 139 184
E-mail: sergiomz786@gmail.com
96. Ernesto Júnior
ADM.EP
AV. acordos de Lusaka nr.3267
Maputo, Mozambique
Tel : +25821 5146500
E-mail: ernesto.manhica@aeroportos.co.mz
97. Leonardo Semende
Chefe dos serviços de informação
e comunieacoes
ADM. EP
Av. acordos de Lusaka nr.3267
Maputo, Mozambique
Tel: +25821468500 / 848165661
E-mail: leonardo.semande@aeroportos.co.mz
98. João Armando
Gestor de Seguranza, Operational
ADM. EP
Av. acordos de Lusaka nr.3267
Maputo, Mozambique
Tel: +258 841457321
E-mail: joao.armando@aeroportos.co.mz
99. Hassan Pecado
AIS Specialist, ADM. EP
Av. Acordos de Lusaka nr.3267
Maputo, Mozambique
Tel: +258 823184430
E-mail: hassan.pecado@aeroportos.co.mz
100. Antonio Chivindze
AIS
ADM, EP
Tel:+258 828030100
E-mail: Antonio.chivindze@aeroportos.co.mz
101. Fortunato Saraiva
Especialista ATM
ADM. EP
Av. acordos de Lusaka nr.3267
Maputo, Mozambique
Tel: 258824761260
E-mail: fortunato.saraiva@aeroportos.co.mz
102. Joana Agostinho Mutimba
Supervisor TICA
ADM. EP
av. acordos de Lusaka nr.3267
Maputo, Mozambique
Tel: +258 21468500
E-mail: joana.agostinho@aeroportos.co.mz
103. Antonio Chivindze
AIS
ADM, EP
Tel:+258 8280100
E-mail: Antonio.chivindze@aeroportos.co.mz

104. Ana Mariza Abrantes
Controlador de Trafego aereo
ADM. EP
Av. acordos de Lusaka nr.3267
Maputo, Mozambique
Tel : 25821466383
E-mail:
mariza.abrantes@aeroportos.co.mz
105. Elias Elon Cossa
Controlador de Trafego Aereo
ADM. EP
Avenue cordos de Lusaka No.3747
Maputo, Mozambique
Tel: 25821468500
E-mail: elias.cossa@aeroportos.co.mz
106. Armando Magaia
Tecnico de Informação e Comunicações
aeronáuticas, ADM. EP
Av. acordos de Lusaka nr.3267
Maputo, Mozambique
Tel: +258 21468500
E-mail:
armando.magaia@aeroportos.co.mz
107. Carlos Langa
Tecnico de Informação e Comunicações
aeronáuticas, ADM. EP
Av.acordos de lusaka nr.3267
Maputo, Mozambique
Tel: +258 21468500
E-mail: carlos.langa@aeroportos.co.mz
108. Acacio Tuendue
Director do Aeroporto de Maputo
Aeroportos de Moçambique
Av.acordos de lusaka nr.3267
Maputo, Mozambique
Tel. +258 21 465827
E-mail: acacio.tuendue@aeroportos.co.mz
109. Alexandrina da R. Machava
Chefe dos transportes e comunicações
Ministerio dos Transportes e
Comunicações
Maputo, Mozambique
Tel. +258 824336580
E-mail: machavalex@yahoo.com.br
110. Américo Muchanga
Presidente o Conselho de Administração
INCM
Tel. Praça 16 de Junho, nr 340
Maputo, Mozambique
- Tel. +258 21227110
E-mail: americo@muchunga.com
111. Ana Sofia F. de Carvalho Nhamuenda
Senior Officer
Mozambique Civil Aviation Institute
Alameda do Aeroporto
Bairro do Patrice Lumumba
Maputo, Mozambique
Tel. +258 846914704
E-mail: ananhamuenda@yahoo.com.br
112. Anselmo Falusso
Jurista, IACM
Alameda do Aeroporto
Maputo, Mozambique
Tel. +25825824554
E-mail: falussoanselmo@yahoo.com.br
113. António Carrasco
Presidente o Conselho de Administração
Emose, SA
Av. 25 de Setembro, nr. 1383
Maputo, Mozambique
Tel. +258 21323290
E-mail: antonio.carrasco@emose.co.mz
114. Antonio Gabriel
ATM Inspector
Instituto de Aviação Civil de Mocambique
Alameda do Aeroporto
Maputo, Mozambique
Tel. +258 844412280
E-mail: antonio.gabr11@yahoo.com.br
115. Arlindo Soto
Director of Air Navigation
IACM
Alameda do Aeroporto
Maputo, Mozambique
Tel. +258847435086
E-mail: asoto@iacm.gov.mz
116. Avelino Carlos dos Santos Chiche
National Security Directorate
MTC Av Marteres de Inhaminga
Maputo, Mozambique
Tel. +258824845660
E-mail: achiche007@gmail.com
117. Benilde Uamir
PEL Inspector
IACM
Alameda do Aeroporto
Maputo, Mozambique

- Tel. +258 825427765
E-mail: benyuamir@yahoo.com.br
118. Carlos Alfredo Nuvunga
AVSEC National Coordinator, IACM
Alameda do Aeroporto
Maputo, Mozambique
Tel. +258 84555255
E-mail: cnuvunga@iacm.gov.mz
119. Edith Machavela
Chief of the Human Resource
Mozambique Civil Aviation Institute
Alameda do Aeroporto
Maputo, Mozambique
Tel. +258842167061
Email: emachavela@iacm.gov.mz
120. Andre Baboy Jose
Psicopedago d Filosofo
Human Resource – IACM
Alameda Dos Aeroportos 227
Tel: +258 843104510
Email: andre.jose03@gmail.com
121. Eduardo Mutereda
Director e operações
Aeroportuaria
Aeroportos de Moçambique
Av. acordos de Lusaka nr.3267
Tel. +258 825135860
E-mail:
eduardo.mutereda@aeroportos.co.mz
122. Emilio Campos
Aeroportos de Moçambique
Chefe dos serviços de Operações e
Segurança Aeroportuaria
Av. acordos de Lusaka nr.3267
Maputo, Mozambique
Tel. +258 848186115
E-mail: fabiao.sibia@aeroportos.co.mz
123. Fabiao Sibia
Aeroportos de Moçambique
Chefe dos serviços de Operações e
Segurança Aeroportuaria
Av. acordos de Lusaka nr.3267
Tel. +258 848186115
E-mail : fabiao.sibia@aeroportos.co.mz
124. Filomena Felix Tiago Jarnete
Gestora de Segurança Operational
Aeroportos de Moçambique
Av. Acordos de Lusaka nr.3267
Tel. +258 845601757
- E-mail:
filomena.jarnete@aeroportos.co.mz
125. Grácio Jaime Mondlane
Meteorologista Aeronautica, IACM
Alameda do Aeroporto
Maputo, Mozambique
Tel. +258824795880
E-mail: gmondlane@iacm.gov.mz
126. Guedes de Argentina Armando
Director Adjunto Pedagógico
Escola Nacional de Aeronautica
Av. de Angola nr.3550
Maputo, Mozambique
Tel. +258 826960987
E-mail: garmando@enaeronautica.edu.mz
127. Jacinta João Herculano
Senior Officer
Mozambique Civil Aviation Institute
IACM - Alameda do Aeroporto, Maputo
Estrada da Namaacha, Km 17, Belo
Horizonte, Província de Maputo
Maputo, Mozambique
Email: cintaherculano@gmail.com
128. Jafar Ruby
Presidente o Conselho de Administração
INAMAR
av. martires de Inhaminga nr.170
Maputo 4317, Mozambique
Tel. +258 21301244
E-mail: jmcruby@gmail.com
129. Jeremias Chitoquico
National Director of Flight Safety
Standards
Avenida da Zambia. No.369.2nd Floor
Maputo, Maputo
IACM
Tel. +258 828879150
E-mail: jeremiaschitoquico72@yahoo.de
130. João da Silva Manuel Muarreia
Tenete Coronel
Comando da Força Aérea
Av. Emilia Dausse nr.223, Maputo
Maputo, Mozambique
Tel. +258844761320
E-mail: jmuarreira@yahoo.com.br
131. Cela Balate
Chief of the AIS Dept
Mozambique Civil Aviation Institute
Maputo, Mozambique

Tel: +258 827028890
E-mail : celabalate@gmail.com

132. Edmundo Chigenge
Director of Safety & QA
Colenta Aviation Mozambique
Maputo International Airport
Tel : +258 827113130
Email : edmundo.chigenge@solenta.com

133. Dalilo Amade
ANS Inspector
IACM Mozambique
Tel: +258 828958570
Email: damade@iacm.gov.mz

134. Idalina Paulo
Operations Manager
Optiflite Mozambique
Tel: +258 844755090 / 824755090
Email: optiflitem@gmail.com

NAMIBIA

135. Angeline Simana Paulo
Director of Civil Aviation
Private Bag 12003 Ausspannplatz
Windhoek, Namibia
Tel: +26461702214
E-mail: director@dca.com.na

136. Tobias Gunzel
Deputy Director
Aviation, Administration & Navigation
Private Bag 12003
Windhoek, Namibia
Tel: +264 61 702215
Email: ddaan@dca.com.na

137. Peterson Petty Uakotoka Tjitemisa
National Liaison Officer and NCMC
Directorate of Civil Aviation
Private Bag 12003
Windhoek, Namibia
Tel: +264 61 702231
E-mail: Peterson.tjitemisa@gmail.com

138. Hamunyela Isak Palyohamba
Acting Chief AIS
Department of Civil Aviation
Private Bag 12003 Ausspannplatz
Windhoek, Namibia
Tel: +26461702214
E-mail: director@dca.com.na

139. Wendy Mueller

Chief Aviation Security and Facilitation
Directorate of Civil Aviation
Windhoek, khomas region Namibia 9000
Tel: +264 61 702201
E-mail: wendymuller@iway.na

NIGER

140. Seydou Yaye Amadou
Directeur Général
ANAC-Niger
BP 727 Niamey, Niger
Tel: +22794943692
E-mail: seyamad@gmail.com

141. Mouniratou Tchado Issoufou
Chef de la division sûreté
ANAC-Niger
BP 727 Niamey, Niger
Tel: +22794962917
Email: mounij5@yahoo.fr

NIGERIA

142. Muhtar Usman
Director General
Nigerian Civil Aviation Authority
(NCAA)
Aviation House, Lagos, Nigeria
Tel: +2348077090902
E-mail: msusman@hotmail.co.uk

143. Martins Nwafor
Representative of Nigeria to the ICAO
999, Boulevard Robert-Bourassa
Montréal, QC, H3C 5J9, Canada
Tel: +1 5149548288
E-mail : nigeria@icao.int

144. Jaiyeola O. Vincent
Captain
Nigerian Civil Aviation Authority (NCAA)
Aviation House
Lagos, Nigeria
Tel: +234-8033090648
E-mail: jaiyeolav@yahoo.co.uk

145. Mahmoud Ben Tukur
Aviation Safety Inspector
Nigeria CAA
M.M. Airport, Aviation House
P.M.B. 21029 IKEJA
Lagos, Nigeria
Tel: +234 8055093355

E-mail: bentukur@gmail.com

PORTUGAL

146. Luís Santos
Chairman of the Board
Portuguese Civil Aviation Authority
Rua B Edificio 4 -Aeroporto de Lisboa
Lisboa 1749-034
Tel: +351 21 842 3561
Email: secretariadopcd@anac.pt

147. Carla Pinto
Portuguese Civil Aviation Authority
E-mail: carla.pinto@anac.pt

REPUBLIC OF KOREA

148. Kim Hongrak
Director
Air Navigation Facilities Division
Office of Aviation Policy
Tel: +82 44 201 4356
E-mail: sgtkhr71@korea.kr

149. Danielle Minjoo Chung
Analyst
The Korea Transport Institute
370 Sicheong-daero
Sejong-si 339-007
Tel: 82-(0)10-7223-4111
Email: mj.danielle.chung@gmail.com

150. Sang Hoon Park
Deputy General Manager
Korea Airport Corporation
Tel: +82 2660-2793
E-mail: airborne@airport.co.kr

151. Shin Kyung
Assistant Director
Flight Standards Division
Tel: +82 44 201 4252
E-mail: cielorosa@korea.kr

152. Sung-Ok Kang (Nick)
Senior Manager
Incheon Airport Corporation
Tel: +82327415712
E-mail: saltkang@airport.kr

SAO TOME & PRINCIPE

153. Eneas Santos
CAA CEO INAC

Airport Neighborhood
Sao Tomé 97
Tel. +239 9903384
Email: enesantos@hotmail.com

SENEGAL

154. Magueye Maramé Ndao
Directeur General
Agence nationale de l'Aviation civile et de
la Météorologie
BP 8184 Dakar Yoff, Sénégal
Tel. +221338656001
Email: magueyemaramen.ndao@anacim.sn

155. Alioune Dieye
Representative of Senegal to ICAO
999, Boulevard Robert-Bourassa
Montréal, QC, H3C 5J9, Canada
Tel: +1 514 954 8384; +14389323381
E-mail: senegal@icao.int

156. Adama Niang
ANACIM – Senegal
Chef Département Sûreté et Facilitation
Tel : +221 33 869 53 35
E-mail : adama.naing@anacim.sn;
niangadama2000@yahoo.fr

SIERRA LEONE

157. Victor E.O Spain
Civil Aviation Authority
Chairman Board of Directors
21/23 Siaka Stevens Street 232 22
Freetown, Sierra Leone
Tel: +232 77 577 022/76610692
Email: veospaine@slcaa.net

158. Abu Bakarr Kamara
Director General
Civil Aviation Authority
3rd Floor, Leone Building, 21/23
Siaka Stevens Street
Freetown, Sierra Leone
Tel: +23276601788
E-mail: abkamara@slcaa.net

159. Joseph Fombo
Head Flight Safety standard Group
Sierra Leone Civil Aviation Authority
Siaka Stevens, street.
Freetown, Sierra Leone
Tel: +232 76866964
E-mail: jfombo@slcaa.net

160. Regina Bridget Minah
Aviation Security Inspector
Civil Aviation Authority
21/23 Siaka Stevens, street.
Freetown, Sierra Leone
Email: rbminah@slcaa.net

SINGAPORE

161. Ngtee Chiau
Representative of Singapore to ICAO
999, Boulevard Robert-Bourassa
Montréal, QC, H3C 5J9, Canada
E-mail: tcgn@icao.int

162. Roy Toh
Senior Assistant Director (Intl. Relations)
Civil Aviation Authority of Singapore
(CAAS)
E-mail: roy_toh@caas.gov.sg

163. Francis Sin
Deputy Manager (intl. Relations)
Civil Aviation Authority of Singapore
(CAAS)
E-mail: francis_sin@caas.gov.sg

164. Constanze Chia
Deputy Manager (Marketing and
Promotions Services)
Civil Aviation Authority of Singapore
(CAAS)
E-mail: constanze_chia@caas.gov.sg

165. Ibrahima Wane
Chef Unité SMS
Agence des Aéroports du Sénégal
Aéroport Léopold Sedar Fonghor
Email : iwarach@hotmail.com

166. Serigne Moustapha Gaye
Chef Service Sureté
Agence des Aéroports du Sénégal
Aéroport int Léopold Sedar Senghor
Email : smgaye@yahoo.fr

167. El hadji Waly Soumare
Chef Pole Operations aeroportuans
Agence des aeroportuans du Senegal
Aéroport int Léopold Sedar Senghor
Email : walyoum@hotmail.com

SOUTH AFRICA

168. Tshepo Peege
Representative of South Africa to ICAO
999 Robert-Bourassa Boulevard, Montréal
Quebec H3C 5H7, Canada
E-mail: Southafrica@icao.int

169. Zakhele Thwala
Deputy Director General
Department of Transport
Tel: +2712 309 3668
Email: ThwalaZ@dot.gov.za

170. Willie Mathonsi
Acting General Manager
Aviation Security
16 Treur Close, Bekker Street Waterfall
Park, Midrand
Tel: +27 11 545 1404
E-mail: mathons.w@caa.co.za

171. Mabaso Levers
Acting Chief Director: Aviation Safety,
Security, Environment and Search and
Rescue
Department Of Transport
Tel: +27 12 309 3385
E-mail mabasol@dot.gov.za

172. Segwabe Simon Bois
Senior Manager: Airworthiness
South Africa: South African Civil
Aviation Authority
Private Bag X 73
Halfway House
Midrand, Gauteng 1685"
Tel: +27(0)11 545 1353
E-mail: segwabes@caa.co.za

173. Lita Fani
Senior Manager Business Development
Air Traffic & Navigation Services
Block C. Eastgate Office Park Bruma
Tel:+27 11 607 11 19
E-mail: lita@atns.co.za

174. Blake Vorster
Acting General Manager Air Safety
Operations
South African Civil Aviation Authority
16 Treur Close, Waterfall Park, Bekker
Street, Midrand

- Tel: +27 11 5451356/+27 834512682
Email: vorsterb@caa.co.za
175. Dayaneethie Yvette Moonsammy
Senior Manager: Learning and
Development/ Vice President AATO
1 Marignane Drive, Bonaero Park,
Kempton Park, Johannesburg
Tel: +27119210323
Email: Dy.moonsammy@comair.co.za
176. Dr Joachim Vermooten
University of Pretoria
Airline lecturer and consultant
439 Elizabeth Grove Pretoria, Gauteng
0081
Lynnwood
Tel: +271283468211
Email: ljoachim@icon.co.za
177. Gladwin Tshabalala
Airports Company South Africa
Group Head Security
Tel: +27 11 723 1455
Email: jason.tshabalala@airports.co.za
178. Gugulethu Poppy Khoza
Director of Civil Aviation (CEO)
South African CAA
Private Bag X73
Tel: +27115451017
E-mail: bouchere@caa.co.za;
khozap@caa.co.za
179. Gwyneth Howell
Acting Senior Manager
Safety & Regulation Assurance
ATNS
Private Bag X15
Kempton Park 1620
Tel : +27 823329217/ 116071355
E-mail : gwynetll@atns.co.za
180. Phuti Moila
Project Manager : Business Development
ATNS
Private Bag 15
Kempton Park 1620
Tel : +27 763586194 / 11 6071254
E-mail : phutim@atns.co.za

SUDAN

181. Mahmoud Salih
Permanent Representative of Sudan to
ICAO

Sudan Civil Aviation Authority
P O Box 430 Sudan CAA
Nile Street 11112
Khartoum, Khartoum
Tel: +249912855290
E-mail: MElhassan@icao.int

182. Yousif Ahmed
Deputy Director General
Civil Aviation Authority
PO Box 165, Khartoum 11112, Sudan
Tel: +249183788175
Email: yibrahim@scaa.gov.sd
183. Elnour Yousif
AVSEC Department
Civil Aviation Authority
Khartoum 11112, Sudan
Tel : +249 123 44 1637
E-mail : avsecinspection@scaa.gov.sd
184. Bahaeldin Abdalrahim
Sudan Civil Aviation Authority
P O Box 430
Tel : +249 9919779039
Email : yassien.atcQ200@gmail.com
/baha@scaa.gov.sd

SWAZILAND

185. Bongani Lukhele
Airport Director
Swaziland Civil Aviation Authority
P.O. Box D361,
The Gables, Ezulwini
Tel : +268 760 64282
E-mail: bongani@swacaa.co.za
186. Deris Hlophe
Airport Manager
Swaziland Civil Aviation Authority
P O Box D361, The Gables
Tel: +268 2518 4390
E-mail: deris@swacaa.co.sz
187. Jabulani Magagula
Head of Aviation Security
Swaziland Civil Aviation Authority
P O Box D361, The Gables
Tel: +268 2518 4390
E-mail: jabulani@swacaa.co.sz

188. Thabani Myeza

Executive : Commercial Services
 ATNS Head Office,
 Bruma, Johannesburg, South Africa
 Tel: 27 11 607 1000
 E-mail: myezat@atns.co.za

189. Tendani Ndou
 Executive: Risk & Compliance
 ATNS Head Office,
 Bruma, Johannesburg, South Africa
 Tel: +27 116071205/8
 E-mail: TendaniN@atns.co.za
190. Nomthandazo Mosupye
 Senior Manager Marketing &
 Communications | Commercial Services
 ATNS Head Office, Bruma, Johannesburg,
 South Africa
 Tel: +27 11 607 1399
 E: thandim@atns.co.za
191. Lita Fani
 Senior Manager: Business Development
 Eastgate Office Park, South Boulevard
 ATNS Head Office,
 Bruma, Johannesburg, South Africa
 Tel: 27 11 607 1000
 E-mail: litaf@atns.co.za
192. Sandile L. Maphanga
 Manager : Central Airspace Management
 Unit, ATNS Ops
 ATNS Operations Complex
 Gate 14, O.R. Tambo Intl. Airport
 Private Bag X1, Bonaero Park, 1622
 Gauteng, Soout Africa
 Tel:+27119286428
 E-mail: SandileM@atns.co.za
193. Phuti Moila
 Project Manager: Business Development
 Eastgate Office Park
 ATNS
 South Boulevard
 Bruma, Gauteng 2001
 Tel: +27 76 358 6194
 E-mail: PhutiM@atns.co.za
194. Faith Ndhlovu
 Marketing Officer | Commercial Services
 ATNS Head Office,
 Bruma, Johannesburg, South Africa Tel:
 27 11 607 1301
 E: FaithN@atns.co.za

195. Hein Reid
 Senior Manager: Operations
 ATNS
 E-mail: HeinR@atns.co.za

196. Lorino Rodrigues
 Country Manager
 South African Airways
 Tel: + 258 21488974
 Av. do Zimbabwe 520
 Maputo, Mozambique
 E-mail: lourinorodrigues@flysaa.com

TOGO

197. Dokisime Gnama Latta
 Directeur Général
 Agence Nationale de l'Aviation civile
 ANAC-Togo
 BP 2699 Lomé, Togo
 Tel : +228 90043839
 E-mail : lattagnama@yahoo.fr /
dganac@anactogo.fr
198. Komla Adonko
 Directeur AVSEC
 Agence Nationale de l'Aviation civile
 Tel: +22891588280
 E-mail: adonko.desire@gmail.com
199. Magnourewa Pelenguei
 Air Transport Director/aerodrome senior
 inspector
 Agence Nationale de l'Aviation Civile
 BP 2699 Bd de la paix Lomme Togo
 Lomé, Maritime 2699
 Tel : +228 92154148/ 99508787
 E-mail: pelengueismael@yahoo.fr
200. Tchontchoko Napo-Koura
 Directeur Finances et comptabilité
 (ASAIGE)
 Autorité de Sûreté de l'Aéroport
 Gnassingbé Eyadema
 Lomé 01, Togo
 Tel: + 228 90 10 72 49
 E-mail: napolion212003@yahoo.fr

TURKEY

201. Haydar Yalcin
 Deputy Director General
 Turkish DGCA
 E-mail: haydar.yalcin@shgm.gov.tr

UGANDA

202. J. W. Kabbs Twijuke
Representative of Uganda to ICAO
Suite 10.45
999 Robert-Bourassa Boulevard
Montreal, Quebec H3C 5J9
Tel: +1 514 954 5710
E-mail : uganda@icao.int
203. Wenceslaus Rama Makuza
Managing Director
P O Box 5536,
Kampala, Uganda
E-mail: wrmakuza@caa.co.ug
204. Charles Matsiko Ssenyonga
Chief Security Officer
Civil Aviation Authority
Tel: +256752651508
E-mail: smatsiko@caa.co.ug
205. Christopher Kasozi
Civil Aviation Authority, Uganda
Senior Economic Regulation Officer
P.O. Box 5536
Kampala, Entebbe
Tel: +256 782085434/256312352000
Email: ckasozi@caa.co.ug
206. Jane Nakimu
Principal AVSEC Inspector
Civil Aviation Authority
Kampala, Uganda
Tel: +256414321435
Cel:+256 772 513471
Email: jnakimu@caa.co.ug
207. Richard Mujungu Ruhesi
Director Air Navigation Services
Civil Aviation Authority
Kampala, Uganda
E-mail: rruhesi@caa.co.ug

SPAIN

208. Victor M. Aguado
Representative of Spain to ICAO
999 Robert Bourassa Blvd. suite 14.50
Montreal, QUEBEC H3C 5J9
Tel: +1 514 954 8307
E-mail: spain@icao.int

UNITED KINGDOM

209. Mark Rodmell
United Kingdom Representative
Suite 14.15
999, Boulevard Robert-Bourassa
Montréal, QC, H3C 5J9, Canada
E-mail: mrodmell@icao.int

UNITED REPUBLIC OF TANZANIA

210. Raphael Bokango
Representative of Tanzania to ICAO
999, Boulevard Robert-Bourassa
Montréal, QC, H3C 5J9, Canada
Tel: +1 5149548363
E-mail: RBokango@icao.int
211. Charles M. Chacha
Ag. Director General
Tanzania Civil Aviation Authority
P.O. Box 2819
Dar-es-Salaam, Tanzania
E-mail: cchacha@tcaa.go.tz
212. Jackson Mseto Marwa
Chief AVSEC Inspector
Tanzania Civil Aviation Authority
P.O. Box 2819
Dar-es-Salaam, Tanzania
E-mail: jmarwa@tcaa.go.tz
213. Jude Patrick Mkai
Chief Inspector Air Navigation Services
P O Box 2819
Tanzania Civil Aviation Authority
P.O. Box 2819
Dar-es-Salaam, Tanzania
E-mail: jmkai@tcaa.go.tz
214. Saidi Abdullah Onga
Ag. Director Air Navigation Services
Tanzania Civil Aviation Authority
P.O. Box 2819
Dar-es-Salaam, Tanzania
E-mail: onga@tcaa.go.tz

UNITED STATES OF AMERICA

215. Julie Abraham
Director Office of International
Transportation and Trade
U.S. Department of Transportation
1200 New Jersey Avenue
Washington DC
E-mail: julie.abraham@dot.gov
216. Shelia Helton-Ingram

Senior Advisor
Office of Aviation and International
Affairs U.S. Department of Transportation
1200 New Jersey Avenue
Washington DC
Tel: +1 202-366-0552
E-mail: shelia.helton-ingram@dot.gov

217. Jennifer Arquilla
Manager
Africa, Europe, and Middle East
Federal Aviation Administration
800 Independence Avenue, SW
AEU-10, FOB 10B, Room 6E22SS
Tel: +1-202-267-8621
E-mail: jennifer.arquilla@faa.gov
218. Moira Keane
Federal Aviation Administration
c/o American Embassy- Dakar, Senegal
Senior Representative in Africa
Tel: +221-338794835
E-mail: mo.keane@faa.gov
219. Catherine M. Lang
Director, Africa Europe and Middle East,
FAA, Brussels
Tel: +322 811 51599E-mail :
Catherine.m.lang@faa.gov
220. Rafael Quezada
Air Traffic Organization
FAA
Washington DC
Tel : 202 267 5159
Email : rafael.quezada@faa.com

ZAMBIA

221. Gabriel Lesa
Director General
Freight village
Lusaka, LUSAKA 10101
Zambia Civil Aviation Authority
Tel: +260977408349
E-mail: gablesa@yahoo.com
Gabriel.Lesa@caa.co.zm
222. Wisdom Kapwasha
First Secretary
Zambian High Commission
Maputo, Mozambique
Tel: +2558 21492452
E-mail: iahcmmap@tvcabo.co.mz

223. Adam Daka
Director Aerodromes and Aviation
Security
Zambia Civil Aviation Authority
Lusaka, Lusaka 10101
Tel: +260953566859
Email: adamdaka@yahoo.com
224. Adesi Phiri Willombe
Aviation Security Inspector
Zambia Civil Aviation Authority
Airport Cargo Village
Lusaka 10101, Zambia
Tel: +260979574929
Email: adesiw@yahoo.com
225. David Kalindi
Chief Security Officer
Zambia Airports Corporation Limited
P.O Box 30175
Lusaka, Lusaka 10101
Tel: +260968003856
Email: kalindidavid@yahoo.co.uk
226. Friday Mcsleezy Mulenga
Airport Manager Zambia Airports
Corporation Limited
Kenneth Kaunda International Airport
P.O Box 30175 Airport Road
Lusaka, Zambia
Tel: +260977770294
Email: Friday.Mulenga@Lun.Aero
227. Prince Chintimbwe
Director Airport Services
Zambia Airports Corporation Limited
Kenneth Kaunda International Airport
P.O. Box 30175
Lusaka, Zambia
Email: prince.chintimbwe@gmail.com
228. Gilford Malenji
Director Human Resources
Kenneth Kaunda International Airport
P.O. Box 30175
Lusaka, Zambia
Tel: +260 211 271 313/271 390
E-mail: gilford.malenji@lun.aero

ZIMBABWE

229. Norman Sanyanga
Aviation Security Manager
Civil Aviation Authority

Harare, Zimbabwe
E-mail: sanyangan@yahoo.com

ACI

230. Michael Rossell
Deputy Director General
ACI
Tel : + 15145120399
E-mail : mrossell@aci.aero
800 Rue du Sq Victoria
Montreal, QC H4Z 1G8

AEROCONSULT

231. Felix José Salgado
Consultor aeronáutico
Aeroconsult
Rua Mateus Sansão Muthemba 402, 1
andar único
Maputo, Maputo
Tel. +258 823051160
E-mail: fsalgado@aeroconsultmz.com

AFCAC

232. Iyabo O. Sosina
Secretary General
African Civil Aviation Commission
Route de l'aéroport Lepold Sedar Senghor
Dakar, B.P. 8898 Dakar-Yoff
Tel: +221338598800
E-mail: secretariat@afcac.org
233. Mesfin Fikru Woldeyohannes
African Civil Aviation Commission
Director Safety and Technical Services
Route de l'aéroport Lepold Sedar Senghor
Dakar, Dakar-Yoff B.P. 8898
Tel. +221338598800
E-mail: mfikru@afcac.org
234. Yvonne Mokgako
African Civil Aviation Commission
Security Expert
Route de l'aéroport Lepold Sedar Senghor
Dakar, Dakar-Yoff B.P. 8898
Tel: +221338598800
E-mail: ymokgako@afcac.org

AFRAA

235. Elijah Chingosho

Secretary General
African Airlines Association
P O Box 20116
Nairobi, Kenya 00200
Tel: +254737085456
E-mail: chingosho@hotmail.com

AAMAC

236. Sadou Marafa
Secrétaire Exécutif des AAMAC
BP 87 ADAC N'Djamena Chad
Tel :+235 98353527
E-mail: marafasa1@gmail.com

AASA

237. Chris Zweigenthal
Chief Executive Officer
Airlines Association of Southern Africa
PO Box 7049
Bonaero Park 1622
South Africa
Tel: +27 116090050
Email: aasa@global.co.za

ASECNA

238. Amadou Ousmane Guitteye
Directeur Général
ASECNA
32-38 avenue Jean Jaurès
BP 3144
Dakar, Senegal
Tel:+221 33 8496806
E-mail: guitteyema@asecna.org
239. Moussa Halidou
Chairperson of the AFI Plan SC
Representative of ASECNA to ICAO
999, bvd Robert-Bourassa suite 8.23
Montreal, QUEBEC H3C 5J9
Tel: +1 514 954 5820
E-mail : mhalidou@icao.int
240. Jean Moussoungou
Chief of Training Section
ASECNA
Tel: + 221 77 170 77 50 /221 33 823 34 96
E-mail: moussoungoujea@asecna.org
241. Wodiaba Samake
ASECNA
Chief Department Safety, Security,
Quality and Environment

32-38, Avenue Jean Jaurès Dakar
Tel: +221 776360542
E-mail: samakewod@asecna.org

AIRBUS

242. Harry Nelson
Executive Operational Advisor to Product
Safety Experimental Test Pilot
Airbus Central Entity
P.O. Box B06-0405 Toulouse, France
Tel: +33562110640
E-mail : Harry.Nelson@airbus.com

243. Maury Seck
Airbus Regional Safety Director – Africa
07 BP 275 Abidjan 07, ABIDJAN, Cote
D'Ivoire
Tel:+22507390972
E-mail: aiblos@airbus.com

BAGASOO

244. Emmanuel Akatue
Executive Director
Floor NCAA Building Nnamdi Azikiwe
International Airport, Abuja, Nigeria
BAGASOO
Tel: +234 8129999982
E-mail: ekatue@bagasoo.org

BOEING

245. Chamsou Andjorin
Director Aviation Safety Africa
and Middle East
P.O. Box 54289
Dubai (UAE)
E-mail: chamsou.d.andjorin@boeing.com

CANSO

246. Boni Dibate
CANSO
Director Africa Affairs
Eastgate Office park Block C, South Blvd,
Bruma, Johannesburg, Gauteng 2198
Tel: +27 116071245
E-mail: bonide@atn.co.za

CASSOA

247. Robert Nviiri
EAC CASSOA
Plot 41-43 Circular Road

Entebbe
E-mail: rmwesigwa@cassoa.org

EAMAC

248. Tchagbele Sadamba
Representative
EAMAC and AATO
P O Box: 746 EAMAC Niamey NIGER
Tel: +227 94092599/+227 90308553
E-mail: tchagbelesadfma@hotmail.fr

ECAC

249. Ernest Ilang Ikwa
Deputy Executive Secretary
ECAC
E-mail: aalexis@ecac-ceac.org

250. Patricia Reverdy
Deputy Executive Secretary
E-mail: preverdy@ecac-ceac.org

EUROPEAN COMMISSION

251. Peter Bombay
Deputy Head of Unit
European Union
700 de la Gauchetiere, SUite 24.70
Montreal, QC, H3B 5M2
Tel: +1 514 393 3220
E-mail : peter.bombay@ec.europa.eu

252. Margus Rahuoja
700 de la Speaker Gauchetiere, Suite
24.70,
Montreal QC, H3B 5M2
Canada
E-mail: rima.ghanem@eeas.europa.eu

253. Michaela Strohschneider
Deputy Head of Unit, Aviation Security
E-mail:
michaela.strohschneider@ec.europa.eu

254. Christopher Ross
Representing the EU to ICAO
E-mail: christopher.ross@eeas.europa.eu

EASA

255. Yves Koning
International Cooperation, Regional
Manager – Africa
European Aviation Safety Agency

Bstfach 101253, D-50452, Cologne,
Germany
Tel. +3228013911
E-mail: yves.koning@easa.europa.eu

256. Anabel Miralles
Technical Cooperation Project Assistant

257. Wilfred Scheulze
Acting Director
Flight Standards

EMPIC GmbH

258. Nigel Coules
Business Development
GERMANY EMPIC GmbH
Erlangen, Bavaria 91052
13 Werner von Siemens Strasse 61
Tel: +44 7808900113
Email: nigel.coules@EMPIC.aero

IATA

259. Tanja Grobotek
Regional Director Safety and Flight Ops-
AFI
International Air Transport Association
Sandown News East Bock, Ground Floor
88 Stella Street, Sandown 2196
Johannesburg, South Africa
Tel: +27 11 5232714
E-mail: grobotekt@iata.org

260. Oscar Harro
Manager, International Airline Training
Fund
International Air Transport Association
Route de l'Aéroport 33, P.O. Box 416
1215 Geneva 15 Airport, Switzerland
Tel: +4122 7702934
E-mail: haroo@iata.org

261. Blessing Kawai
Assistant Director Africa
International Air Transport Association
Sandown News East Bock, Ground Floor
88 Stella Street, Sandown 2196
Johannesburg, South Africa
Tel: +27 11 523 2722
E-mail: kawaiB@iata.org

262. Kevin Hiatt
Sr. VP Safety & Flight Ops
Montreal, Canada

Tel: 514 874 0202
Email: hiattk@iata.org

263. Oscar Haro
Manager International Airline
Training Fund (IATF)
Tel: +41 22 7702934
Email: haaroo@iata.org

INTERPOL

264. Francis Xavier Rwego
Head
INTERPOL Regional Bureau for Eastern
Africa
E-mail: f.rwego@interpol.int
P.O. Box 42997, 00100 Nairobi, Kenya

INDUSTRIES

ECTAR

265. Cheick Tidiane Camara
PCA
ECTAR
26-28 Av. de la République
93170 Bagnolet, France
Tel : +33686863218
E-mail : ctcamara@ectar.aero

266. Delia Bergonzi
CEO
ECTAR
26-28 Av. de la République
93170 Bagnolet, France
Tel : +33674648957
E-mail: dbergonzi@ectar.aero

ICAO SECRETARIAT

267. Fang Liu
Director, Bureau of Administration and
Services
International Civil Aviation Organization
999, Boulevard Robert-Bourassa
Montréal, QC, H3C 5H7, Canada
Tel: +1 (514) 954 8219
E-mail : FLiu@icao.int

268. Ivan Galan
Director, Technical Cooperation Bureau
International Civil Aviation Organization
999, Boulevard Robert-Bourassa
Montréal, QC, H3C 5J9, Canada
Tel: + 514 954 8065

- E-mail: igalan@icao.int
269. Stephen Creamer
 Director, Air Navigation Bureau
 International Civil Aviation Organization
 999, Boulevard Robert-Bourassa
 Montréal, QC, H3C 5H7, Canada
 Tel: + 1 514-954-8219 ext 6125
 E-mail: spcreamer@icao.int
270. Meshesha Belayneh
 Deputy Director, Technical Cooperation
 Bureau
 International Civil Aviation Organization
 999, Boulevard Robert-Bourassa
 Montréal, QC, H3C 5H7, Canada
 Tel: +1 514 954 8066
 E-mail : MBelayneh@icao.int
271. Barry Kashambo
 Regional Director
 Eastern and Southern African Office
 P.O. Box 46294 - 00100 GPO
 United Nations Avenue, UN Complex
 Nairobi, Kenya
 Tel: +254 20 7622395
 E-mail: bkashambo@icao.int
272. Linda Comeau-Stuart
 Chief, Implementation Support and
 Development - Security
 International Civil Aviation Organization
 999, Boulevard Robert-Bourassa
 Montréal, QC, H3C 5H7, Canada
 Tel: +1514-954-6654
 E-mail: jlamosa@icao.int
273. Juan Lamosa
 Chief, Implementation Support and
 Development - Security
 International Civil Aviation Organization
 999, Boulevard Robert-Bourassa
 Montréal, QC, H3C 5H7, Canada
 Tel: +1514-954-6654
 E-mail: jlamosa@icao.int
274. Mostafa Hoummady
 Manager GAT Office
 International Civil Aviation Organization
 999, Boulevard Robert-Bourassa
 Montréal, QC, H3C 5H7, Canada
 Tel: + 1 514-954-8219
 E-mail: mhoummady@icao.int
275. Gaoussou Konate
 Deputy Regional Director
 International Civil Aviation Organization
 Western & Central African Office
 Leopold Sedar Senghor Airport
 Senegal
 Tel: +221 33 869 24 24/02
 E-mail : gkonate@icao.int
276. Prosper Zo'o Minto'o
 Deputy Regional Director
 Eastern and Southern African Office
 P.O. Box 46294 - 00100 GPO
 United Nations Avenue, UN Complex
 Nairobi, Kenya
 Tel : +254 20 7622367
 E-mail : PZoomintoo@icao.int
277. Ousman Kemo Manjang
 Regional Officer– AIR
 International Civil Aviation Organization
 Western & Central African Office
 Leopold Sedar Senghor Airport
 Senegal
 Tel: +221 3386924 24/06
 E-mail : omanjang@icao.int
278. Milton Tumusiime
 Regional Officer, Flight Safety
 Eastern and Southern African Office
 P.O. Box 46294 - 00100 GPO
 United Nations Avenue, UN Complex
 Nairobi, Kenya
 Tel: +254705182155
 E-mail: mtumusiime@icao.int
279. Christian Bechtold
 Field Operations Officer
 International Civil Aviation Organization
 999, Boulevard Robert-Bourassa
 Montréal, QC, H3C 5H7, Canada
 Tel: +1 (514) 954-8219 (ext: 6039)
 E-mail : cbechtold@icao.int
280. Frank Durinckx
 Project Coordinator
 ICAO
 Nachtegalenlaan 85
 Tervuren, Belgium B3080
 Tel: +32 471132811
 E-mail: fdurinckx@icao.int
281. Eyob Estifanos Kebede
 Associate Programme Officer
 P.O. Box 46294 - 00100 GPO

United Nations Avenue, UN Complex
Nairobi, Kenya
Tel: +254207622373
E-mail : eestifanos@icao.int

282. Jacques Kragbé Douka
Inspecteur Régional Licences du
Personnel
Projet COSCAP-UEMOA
Burkina Faso
Tel: +226 75 88 07 24 / 78 02 76 46
E-mail : jacques.douka@gmail.com
283. Suzette Nieuwoudt
Project Coordinator
P.O. Box 250 Gaborone
Botswana
E-mail: snieuwoudt@yahoo.co.uk
284. Momar Gueye
Inspecteur Navigabilité des Aéronefs
COSCAP-UEMOA
01 BP 6150
Tel: +226 61 80 7715
E-mail : momar_gueye@hotmail.com
285. Ouedraogo Alain
Director
National Civil Aviation Agency
Avenue De La Revolution
Ouagadougou, Kadiogo BP 1158
Tel : +226 78 01 74 41
E-mail : eraral@yahoo.fr
286. Igritoun Mandandy
Chef de Division Formation AVSEC et
contrôle qualité
COSCAP-UEMOA
BP 96 N'Djamena, Tchad
Tel: +235 66273227
E-mail : igritouin@yahoo.fr
-