



OFFICIAL REPORT OF THE
**5TH EAST AFRICAN
COMMUNITY AVIATION
SYMPOSIUM**

27TH - 28TH FEBRUARY, 2020

HOTEL CLUB DE LUC TANGANYIKA,
BUJUMBURA, BURUNDI.



WELCOME

OFFICIAL REPORT OF THE 5TH EAST AFRICAN COMMUNITY AVIATION SYMPOSIUM

DELEGATES

with the Guest of Honor, H.E the Second Vice President of the Republic of Burundi at the 5th East African Community Aviation Symposium.



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DAY ONE: FRIDAY, 28TH FEBRUARY 2020

A. INTRODUCTION

EAC Aviation Symposia were established by the CASSOA Board as a means of raising awareness on issues affecting Aviation Safety & Security globally and specifically the EAC Region. They also provide forum for interaction amongst aviation stakeholders to share their knowledge and experiences.

The 5th EAC Aviation symposium was held under the theme 'Evolving with dynamic technological transformation – The case of Aviation Safety and Security' with the objective of sharing knowledge and information stemming from recent research and analysis on numerous Aviation Safety & Security topics and raising awareness of the opportunities associated with Aviation Safety & Security for the youth. The event was hosted in Bujumbura, Burundi from 27th to 28th February 2020 at the Hotel de Luc Tanganyika Hotel and brought together over two hundred aviation stakeholders comprising Manufacturers, operators, regulators among others.

The Symposium was officially opened by the Second Vice President of the Republic of Burundi, Honorable Joseph Butore on behalf of the President and opening remarks made by the Minister of Transport, Public Works, Equipment and Land use Planning for the Republic of Burundi, representatives from the International Civil Aviation Organization (ICAO) and EAC-CASSOA.

A number of presentations were made including Legal Challenges Arising From Technological Dynamism In Aviation, Engaging Stakeholders In a coordinated collaboration for aviation development in Africa, Google Loon, CCO/CDO implementation in Africa, Status of implementation of the Single African Air Transport Market, EMEA Airspace Mobility Solutions Land & Air Systems, Global Surveillance from Space Based ADS-B, Aspects of Aviation Medicine in Flight Safety, Feasibility and reality Of an EAC UTMS System, EMPIC, Standard Software for Regulators, Air Ambulance Operations, Airport Collaborative Decision Making (ACD-M), ICAO Traveler Identification Programme (ICAO TRIP) and The Path To The SADC Upper Air Space Control/Management Centre (Challenges And Achievements).

B. OPENING REMARKS

1. EXECUTIVE DIRECTOR, EAC-CASSOA

On behalf of the EAC-CASSOA Management and Staff, Mr. Emile Arao Nguza, the Executive Director of CASSOA welcomed the delegates to the 5th EAC Aviation Symposium.

He thanked the Burundi Civil Aviation Authority and the government of Republic of Burundi for hosting the 5th EAC Aviation Symposium. He also thanked the event sponsors, Civil Aviation Authorities in the EAC Partner States, industry stakeholders, professionals and aviators in general for organizing and facilitating the symposium.

He noted the undeniable fact that technological evolution had brought a lot of improvements in civil aviation in the region and elsewhere. It was against this background that the 5th EAC Aviation Symposium was premised on the aspects of technologies in civil aviation.



MR. ARAO, EXECUTIVE DIRECTOR EAC-CASSOA

Mr. Arao explained that aviation is a dynamic and ever-changing industry driven by the ever-increasing number of airspace users thereby prompting the need for new procedures in aircraft manufacturing, adaptation to artificial intelligence (AI) amongst others. He committed that EAC-CASSOA shall continue to welcome all new technologies together with the challenges they present. In conclusion, he called upon the participants to discuss and draw up recommendations on how opportunities relating to technological advancement can be fully utilized for the benefit of civil aviation safety, security, capacity, efficiency and environment and take meaningful actions to adapt to emerging technologies through forming alliances and mutual cooperation and business relations.

2. BOARD CHAIRMAN, EAC-CASSOA

Capt. Gilbert Kibe, Director General KCAA and Chairman of EAC-CASSOA Board, welcomed delegates to Bujumbura and said that the EAC-CASSOA took pride in hosting and facilitating events like the Symposium as they invariably bring an evolutionary and educative atmosphere in the global civil aviation industry. He promised on behalf of the EAC CASSOA Board, to continue to taking an active role in the adaptation to the dynamic nature of the industry. In addition, he thanked partners across the world including sponsors, associates, and well-wishers for participating in the Symposium.

In his remarks, Capt. Kibe explained the role of EAC-CASSOA in providing support to EAC Partner States on compliance with aviation safety and security Standards and Recommended Practices and that the Agency was braced to extend its affiliation and collaboration with its partners, at local and global levels, to ensure that the rising emerging technologies in aviation get the necessary attention. EAC-CASSOA has taken meaningful measures to ensure that entry of drones and other unmanned aircraft technologies in the airspaces are regulated taking into consideration safety and security aspects. As a regional safety oversight organization (RSOO), CASSOA is aware of the potential security threats and disruption posed by new technologies and the need to address them at both national

and international level. He reasserted support of CASSOA in facilitating emergence of disruptive technologies for wider benefit of citizens of the world and that it will remain vigilant as a regional body and continue steadfast promotion of technological advancements globally.

He reiterated that entry of new technologies in the market will continue to impose numerous challenges in airspace use, organization and safety and in this respect CASSOA is braced to counteract these challenges in cooperation with its reliable and valuable stakeholders.



CAPT. GILBERT KIBE, DG KCAA, CASSOA BOARD CHAIR

3. DEPUTY REGIONAL DIRECTOR, ICAO ESAF

On behalf of the ICAO Regional Director ESAF, and on behalf of the entire ICAO fraternity, the Deputy Director ICAO ESAF, Mr. Athermon Ndikumana expressed his pleasure at addressing the 5th EAC Aviation Symposium. He highlighted the importance of the event to the aviation industry in the region, particularly the East African Community Partner States especially at a time when ICAO continues with its efforts to enhance partnership with Regional organizations towards achieving the common objective of improving Aviation safety and security Systems.

He said that the theme of the symposium was



MR. ATHERMON NDIKUMANA

DEPUTY REGIONAL DIRECTOR - ICAO ESAF

welcome to the delegates and expressed pleasure in joining them at the opening ceremony of the 5th East African Community Aviation Symposium. He invited the delegates to enjoy the fresh air of Lake Tanganyika, the nature, the climate, comfort and tourism of Burundi.

He thanked CASSOA for the confidence placed in Burundi to host the important international event. He also hailed the exceptional relationship established between the East African Community Partner States that is based on a common vision and a deep understanding of both aviation safety objectives and the development of diverse areas to strengthen the position of each country.

The second Vice President also informed the delegates about the modernization, construction and renovation of most of the airport facilities at Melchior NDADAYE International Airport as one of the priority projects for the Burundi Government being implemented through bilateral cooperation with the Government of the People's Republic of China.

He said Burundi adheres to all agreements on international air transport, with the purpose of being in direct connection with other countries by air, providing an efficient and profitable air transport service at reasonable cost while strengthening the global civil aviation safety and security. Additionally, he gave assurance that recommendations of the Security Audit, and the ICVM carried out by the International Civil Aviation Organization (ICAO) where being implemented in order to resolve deficiencies in the areas of oversight of civil aviation security and safety.

Before ending his speech, he noted that despite all the measures taken, challenges remain and therefore urged CASSOA to strengthen its customary collaboration to support States in order to achieve the goals that have been set. On the behalf of the government of Burundi, he thanked the partners who provided financial and material support to the event and guaranteed them total collaboration for the benefit of the civil aviation sector in Burundi.

In closing, Honorable Joseph Butore wished all the guests a pleasant stay in Burundi and declared the 5th EAC Aviation Symposium officially opened





MR. EMMANUEL HABIMANA
THE DIRECTOR GENERAL, BCAA

technologies so as to improve civil aviation safety and security in Burundi and that the depth of challenges was understood with a desire to turn them into opportunities.

In concluding his remarks, he welcomed the Honorable Minister of Transport, Public Works, Equipment and Land Use Planning Republic of Burundi to make his remarks.

5. MINISTER OF TRANSPORT, PUBLIC WORKS, EQUIPMENT AND LAND PLANNING, REPUBLIC OF BURUNDI

The Minister of Transport, Public Works Equipment and Land Use Planning, Honorable Jean Bosco Ntunzwenimana warmly welcomed the delegates to Burundi and particularly extended a very warm welcome to the Second Vice President of the Republic of Burundi.

He also extended his gratitude to the East African Civil Aviation Safety and Security Oversight Agency, as well as to all the Civil Aviation Authorities of the East African Community for all efforts made towards the orderly, safe, secure and efficient development of Civil Aviation in the Sub-region. He particularly noted that since



HONORABLE JEAN BOSCO NTUNZWENIMANA,
MINISTER OF TRANSPORT, PUBLIC WORKS
EQUIPMENT AND LAND USE PLANNING

the entry of Burundi in the East African Community, CASSOA has greatly supported it in the context of harmonization of technical Guidance Materials and Regulations, as well as the sharing of technical resources as needed, especially during preparations of international audits of the International Civil Aviation Organization. Burundi has notably moved from the lowest level of compliance with the international standards to more than 80% of compliance during the Civil Aviation Security audit and progress of 20% in the recent ICAO Coordinated Validated Mission.

In conclusion, he congratulated BCAA and CASSOA on organizing an event that would enable aviation stakeholders share on emerging issues of international civil aviation and committed his continuing support to CASSOA activities and initiatives.

6. SECOND VICE-PRESIDENT OF THE REPUBLIC OF BURUNDI

Honorable Joseph Butore, the Vice President of the Republic of Burundi, on behalf of His Excellency Pierre NKURUNZIZA, President of the Republic of Burundi, on behalf of the Burundi Government and on behalf the people of Burundi extended a warm and cordial

C. SESSION I



MR. SYLVESTER SINARINZI , MAKES HIS PRESENTATION

1. TOPIC ONE.



LEGAL CHALLENGES ARISING FROM TECHNOLOGICAL DYNAMISM IN AVIATION

By Mr. Sylvestre Sinarinzi, Principal Air Navigation Services Officer, EAC-CASSOA

Mr. Sinarinzi in opening his presentation acknowledged that it is not possible to separate aviation from technology noting that technology had greatly contributed to the evolution of Civil Aviation and provided aviation with nearly unlimited potential for growth.

However, it was also clear from his presentation that challenges in aviation regulation are considered to have originated from technological complexity, in addition to the highly sophisticated nature of aviation. Aviation being a constantly growing industry, calls for technological responses to satisfy the needs of the ever growing flying public. He gave examples of innovative technologies that have recently become available in aviation that is, Biometrics, drones, digital twins, virtual reality, cloud these include Block chain, data, and enhanced security. As a result of innovation, workload and human error are reduced and risk to aviation operations mitigated both in air and on ground.

The regulation of drones, including their integration to share the airspace with normal traffic remains a challenge. Modern aviation is a complex interaction between human beings and machines and is made possible by Standards and Recommended Practices and the process of making SARPs.

It was noted that the process of making SARPs involves highly specialised resources and many stakeholders and therefore, many states fail to comply with the SARPs since they still lack adequate technical capability.

Mr. Sinarinzi proposed some adjustments to be made including the promulgation of technological related regulations such as provisions on cybersecurity in civil aviation and mandating RSOOs with appropriate regulatory functions, namely in the GASOS framework. He stated that the importance of regulating the aviation industry cannot be overemphasized with Safety and security being the number one priorities.

2. TOPIC **TWO.**

“ **ENGAGING STAKEHOLDERS IN A COORDINATED COLLABORATION FOR AVIATION DEVELOPMENT IN AFRICA** ”

By **Gaoussou Konate**, Consulting Director Technical and Operations (AFRAA)

Mr. Konate began his presentation by mentioning some of the key issues affecting Aviation development in Africa namely;

HIGH OPERATING COST ENVIRONMENT LEADING TO:

Non-viable flight operations and;
Unaffordable air transport price.

REGAINING AND INCREASING AFRICA'S MARKET SHARE THROUGH:

AfFCTA Implementation
SAATM Framework

AFRICAN AIR TRANSPORT MARKET MARGINALIZATION;



MR. KONATE GAOUSSOU , MAKES HIS PRESENTATION

Africa's population accounts for 16% of the world population yet, Africa's share of global trade is only 2%. Its landmass could accommodate the USA, India, China, Mexico, Argentina, and even more States as displayed in the map. While these states score more than 50% of the world air traffic, Africa achieves only 2.2% of the global traffic.

Struggling for market shares, African airlines charge less US Cents per Pax-KM than European air carriers, on equivalent travel distances. However, adding the applicable charges and taxes, fares to be paid by pax become double in Africa compared to Europe. African operators' cost of the availability seat-kilometre is twice expensive compared to European airlines

The fourth fact is that African airlines operate with an average load factor lower by 10 percentage points compared to the world average; while European airlines' load factors are higher than the industry average. Consequently, flight operations are profitable for European airlines whereas African airlines have made losses years after year since 2010. Furthermore, European middle-class citizens with high per capita income and lower fares undertake 26 trips per year while their African counterparts with lower income and higher fares can afford only 1 trip per year

Mr. Gaooussou explained that the high operating cost environment was impacting the industry negatively and Africa's air transport market remains modest while African airlines contributions shrink continuously. He also stated that by 2019, African airlines' contribution in the transport of Africa's market share had dropped below 20%. Currently, the African market was even less than 2.5% of world and the shares of foreign carriers exceed 80%. Currently, a third of African city-pair traffic goes through hubs outside the Continent.

The Presenter was convinced that, as a continent, Africa could reverse the marginalization trends and even increase Africa's Market Share on the globe by acting on the two levers of the African Middle-Class and the Air Travel Affordability through increasing the size of the African middle class and increasing the disposal income of middle-class citizens in the Region. He also emphasized that there must be reduction in operating costs by 60%, with the view of reducing by 50% the air fares. Given that air traffic follows trade, the AfCFTA implementation would induce needs for new connections and strengthen traffic flows on existing city-pairs.

Mr. Gaoussou was optimistic that the implementation of the AfCFTA would stimulate air traffic growth within Africa and as an outcome development of trade as air transport provides sound logistics. He therefore called upon States that have signed the free trade agreement to also go for SAATM in support of trade development and for Aviation stakeholders to promote the AfCFTA as it would ease SAATM implementation. He urged the African stakeholders to anchor SAATM implementation on AfCFTA and boost air transport in Africa at levels requiring more airlines.

He emphasized that close coordination, cooperation, and collaboration must involve all Aviation stakeholders and could act efficiently on the second lever to reduce by 60% the operating costs leading to a slash by half of air travel fares. Airlines must collaborate to gain in productivity; ANSPs must collaborate to gain in productivity and provide seamless efficient services; Airport operators must collaborate to gain productivity and make available facilities enhancing passenger travel experience. CAAs need to cooperate more in RSOOs, gain productivity through economies of scales to ensure efficient oversight services; and together, all stakeholders must lobby States to reduce taxes relating to air transport business environment, with emphasis on fuel taxes and concession fees. This could make air travel affordable and accelerate traffic growth towards double-digit rates by 2025.

He called upon all stakeholders to implement the free routing in the continental airspace in line with APIRG/22 Conclusion 22/36. Airlines, ANSPs, CAAs should proudly report to APIRG 23 the contribution the said APIRG Conclusion in terms of reduction of operating costs and environmental protection.

3. PRESENTATION ONE.

GOOGLE LOON BY WAJAHAT BEG

Mr. Wajahat introduced Google Loon and explained that loon balloons are being used to provide continued connectivity to more people around the world. They are endorsed technical solutions consistent with SARPS including Loon LLC that was recently endorsed by the ICAO General Assembly. He gave an overview of the balloons' capability, navigation, operation, control, and unique features which include:

- **EXPANDED NETWORK COVERAGE;**
- **AN EFFECTIVE SOLUTION IN TIMES OF DISASTER;**
- **ALWAYS ABOVE ATC CLEARANCE.**
- **ICAO/ FAA COMPLIANT SAFETY MANAGEMENT SYSTEMS; AND**
- **LOON ENABLES MOBILE NETWORK OPERATORS TO EXPAND THEIR LTE COVERAGE TO HARDER TO REACH AREAS;**



WAJAHAT BEG, HEAD OF OVERFLIGHTS LOON

4. FIRST PANEL DISCUSSION

Moderated by Capt. Tom Ogenche featuring Mr. Sylvestre Sinarinzi, Mr. Wajahat Beg, Mr. Amukono Lawrence and Mr. Gervais Havyariman

The first Panel Discussion reviewed the presentations on Legal Challenges arising from Technological dynamism in Aviation, “Engaging stakeholders in a coordinated collaboration for Aviation Development in Africa” and “Google Loon”.

The panel moderator welcomed all members present and thanked the BCAA for hosting the symposium and invited the plenary to make comments and raise questions.

Question 1

HOW TECHNOLOGY HAS IMPACTED AVIATION AND WHAT IS THE CAPACITY OF STATES TO COPE WITH TECHNOLOGICAL CHANGES?

The panellists discussed how technology has impacted aviation and how it is used as a solution but with residual challenges. The plenary agreed that although Technology has positively impacted the industry, regulatory capacity is required to continuously address the emerging challenges. The challenges arising from technological advancements can be overcome through formulation of appropriate policies within the States. In order for states to cope with these dynamic technological innovations they should fully engage stakeholders such as aircraft manufacturers and build capacity of their regulators to enable them adapt and keep abreast with the new technologies.

Question 2

HOW IS THE AVIATION COMMUNITY GOING TO HANDLE CYBER SECURITY IN THE FUTURE?

It was emphasized that policies and regulations to address cyber-attacks need to be developed. Once robust policies regulations are in place, procedures to control cyber-attacks should be formulated

Question 3

HOW CAN TECHNOLOGICAL INNOVATIONS BE MATCHED WITH ABILITY OF AVIATION PROFESSIONALS?

Whenever there's new technological innovation and advancement, there's always need for training in order to allow for human adaptation. The plenary cited the example of the B737 Max in which there was new automation that pilots were not well adapted to. This clearly demonstrated that whenever there's new technological innovations, aviation professionals should be trained adequately for them to adapt to the new technology.

Question 4

ARE STATES AND MANUFACTURERS PREPARED TO MANAGE THE AIRSPACE WITH THE ADVENT OF UNMANNED AIRCRAFT SYSTEMS?

The plenary discussed and resolved that a collaborative approach between Manufacturers and Regulators was necessary to build human capacity in preparation for the integration of the new disruptive technologies in the airspace. Performance Based Regulations as opposed to prescriptive Regulations will go a long way in achieving seamless integration. The panellists also suggested that UAS operations can be better handled by separation, tolerating and integrating them.

Question 5

WHAT CAN AFRAA AND IATA DO TO BALANCE COSTS OF AIR TICKETS IN ORDER TO MAKE AIR TRANSPORT ATTRACTIVE?

During the panel session it was highlighted that the cost of airline operations had not been fully discussed and that the reduction in the cost of Air Tickets depends on a broad spectrum of interventions by several stakeholders including Regulators, Airlines, Governments and IATA.

It was also mentioned that Pillar 3 on the operationalization of SAATM is expected to reduce the costs of operation and air ticket. In this regard AFCAC has engaged ICAO to carry out capacity building of stakeholders in order to effectively regulate prices of Air Tickets.

The plenary commented on the need to analyse the cost structure of the air ticket and all other considerations including infrastructure in order to find solutions to the high ticket costs.

D. SESSION II



CAPT. TOM OGENCHE, MR. SYLVESTRE SINARINZI, MR. WAJAHAT BEG, MR. AMUKONO LAWRENCE AND MR. GERVAIS HABYARIMANA, DURING THE FIRST PANEL SESSION.

1. TOPIC THREE.



CCO/CDO IMPLEMENTATION IN AFRICA

By Ms. Charity Muthoni, Director ANS, KCAA

In her presentation, Ms. Muthoni first explained that the AFI-Planning and Implementation Regional Group (APIRG) in its 22nd meeting, reported zero implementation of CCOs/CDOs in the region and discussion on the subject reflected lack of a shared understanding on the subject of Continuous Climb Operations/ Continuous Descent Operations (CCOs/CDOs, leading to the formulation of APIRG conclusion 22/08.

The CCO/CDO concept involves Aircraft operating techniques enabled by airspace design, Instrument Flight Procedure Design and facilitated by Air Traffic Control (ATC). She said the topic of CCOs and CDOs although technical in nature needed to be addressed at the Strategic/policy level down to operational levels and with wider stakeholder consultations and involvement.

She pointed out the potential benefits of CCO/CDO which included increased efficiency, flight predictability, increased Airspace capacity, reduced noise, fuel savings, reduced CO2 emissions, safety maintenance and reduction in controller-pilot workload. Stakeholder issues that arise at the strategic level involve effective guidance from a Global strategic view through the Global Air Navigation Plan (GANP) and at a regional level through APIRG decisions.

In summarizing her presentation, Ms. Charity emphasized that Policy/Decision Makers (Strategic Level National) must address through policy/Decisions Strategic Objectives that drive airspace concept and airspace and flight procedure designs needed to implement an airspace concept that are confluent with the set airspace concept strategic objectives while striving to meet expectations of airspace users.



MR. CHARITY MUTHONI, MAKES HER PRESENTATION

2. TOPIC FOUR.

“ STATUS OF IMPLEMENTATION OF THE SINGLE AFRICAN AIR TRANSPORT MARKET

By Mr. Eric Ntagengerwa, Senior Policy Officer - Air Transport Infrastructure & Energy Department of the African Union

Mr. Ntagengerwa noted that the establishment of SAATM - Flagship project of Agenda 2063 of the African Union was based on the Yamoussoukro Decision (YD) of 1999 and is the most important air transport reform policy initiative in Africa providing for the liberalization of scheduled and non-scheduled air transport services within Africa. It aims at removing restrictions on traffic rights, capacity and frequency between African city pairs by designated Eligible African carriers.

He explained that African States through the African Union resolved to establish a Single African Air Transport Market (SAATM), support the initiative of Championing States to open their respective air transport markets immediately and without conditions, provide resources to AFCAC to adequately carry out its activities as a Specialized Agency on aviation matters, facilitate air connectivity by implementing the regulatory texts of the Yamoussoukro Declaration and called upon development partners to support the implementation of the SAATM under the AU Agenda 2063.



MR. ERIC NTAGENGERWA, PRESENTING ON SAATM

Expected outcomes/benefits of full implementation of YD and establishment of a SAATM will include increased choice of carriers, convenience and ease of travel, better connectivity, reduced fares, better quality & reliable services from competing airlines. Furthermore, there will be more commercial freedom to wider route networks more frequencies, hence economies of scale and density, better aircraft utilization, flexibility and reduced cost of operations. It will also lead to more flexible commercial arrangements such as alliances, code shares, franchises, interlining, mergers and acquisitions among African carriers.

It is worth noting that SAATM will also give rise to increased and efficient utilization of airport facilities and airspace. It will also enhance revenue generation from passenger service charges, increased landing and parking fees., enhanced air navigation charges and improved non-aeronautical revenues.

The speaker highlighted the implementation framework which includes six pillars namely, Pillar 1: Advocacy to SAATM; Pillar 2: SAATM Regulatory Framework; Pillar 3: Operationalization of SAATM; Pillar 4: Aviation Infrastructure; Pillar 5: Aviation Safety and Security; and Pillar 6: Aviation Financing.

In conclusion, the speaker said that there were 33 States party to the Solemn Commitment as at end of December 2019, namely Benin, Burkina Faso, Botswana, Cape Verde, Cameroon, Central African Republic, Congo, Côte d'Ivoire, Chad Democratic Republic of the Congo, Egypt, Ethiopia, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea Conakry, Guinea Bissau, Kenya, Lesotho, Liberia, Mali, Morocco, Mozambique, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Eswatini, Togo and Zimbabwe. He made an appeal to the remaining States in the EAC to sign the solemn commitment.



MR. XAVIER , PRESENTING ON EMEA

3. PRESENTATION **TWO.**



EMEA AIRSPACE MOBILITY SOLUTIONS LAND & AIR SYSTEMS

By Mr. Francois Xavier, Head of Business Development, Thales/ATM/CNS

Mr. Xavier explained that aviation was being reshaped by many powerful forces which are fundamentally impacting the airspace and that complex operational environment requiring innovative digital solutions and better collaboration between all aviation stakeholders were necessary for global aviation optimization. He noted that digital transformation is not only about technologies but business models and working methods are also key for success. The ecosystem provided a secure platform for enabling collaboration by enhancing shared awareness, assessment of impact on users' operations and collaborative decision support.

The presenter expressed his confidence that the EAC regional assets for digital transformation could be identified through increased collaboration by sharing strategic aviation data at regional level, homogeneity, consistency, security and segregation of data.

In conclusion the presenter outlined the natural benefits of the strategic cloud approach as permanent update of public cloud vs cyber threats, setting the standard of tomorrow towards the African ANP, regional horizon collaboration by sharing necessary data, teaming for harmonization, cyber-resilience designs, optimised costs and avoidance of disruptive upgrades among others.

4. PRESENTATION **THREE.**



GLOBAL SURVEILLANCE FROM SPACE BASED ADS-B: NO MORE DEPENDENCIES FROM GROUND SENSORS



Mr. Michele, CARANDENTE

Carandente introduced Aireon, an innovative and proven surveillance concept through ground-based stations. He explained how radar “calculates” a target position, ADS-B broadcasts a GPS position. He noted that ADS-B is much more accurate (higher update interval, GPS position) and much lower in cost than radar (10% of the costs). ADS-B is globally accepted as an augmentation or replacement of radar, and is considered as an upcoming transponder requirement for all aircraft in Europe and US. Currently new aircraft are required to be ADS-B equipped.

He also commented that over 70% of the world was not covered by ATS Surveillance. However, statistics indicate that in 2019,

ADS-B made it possible to achieve 100% Global Air Traffic Surveillance. Aireon has recorded 66 Low Earth Orbiting satellites, 8 years in the making and 100% global ATC coverage for the first time in history. So far 75 satellites have been launched.

Aireon is a satellite system designed to meet ATS surveillance requirements. It’s a new concept using known technology. Service / System development lifecycle involves Designing the System, building the System, deployment & testing of the System, operation and Maintenance of the System and finally Delivering the service.

In addition, he explained that Aireon is certified by EASA as an approved ATM/ANS Service Provider. This has allowed Aireon to be a provider for Pan-European services to multiple Air Navigation Service Providers (ANSPs). The certification also helps Aireon to engage with non-EU states, including the FAA, since EASA is considered a credible authority worldwide. Together with the EASA certification of Aireon, is venturing into oceanic airspace environment (NRA) and Terrestrial European airspace.

5. SECOND PANEL DISCUSSION

The second panel was moderated by Eng. Ronny Barongo assisted by panelists Ms. Charity Muthoni, Mr. Eric Ntagengerwa, Mr. Andrew Mwesige, Ms. Agnes Aguma, Mr. François Xavier and Mr. George Mbugua. Eng. Barongo summarized the topics from the second session of the presentations and invited the plenary to discuss and ask questions about the topics. The panel reviewed the presentations on CCO/CDO Implementation in Africa, Status of Implementation of the Single African Air Transport Market, EMEA Airspace Mobility Solutions Land and Air Systems.



The panel also addressed the following questions from the plenary:

Question 1

WHAT IS THE PRACTICABILITY OF CCO/CDO?

In response to the question, it was agreed that practicability of CCO/CDO depended largely on the airspace design and route design. In order to effectively implement CCO/CDO the requirements of the airspace users have to clearly spelt out.

There is need to collaborate with all stakeholders for instance, if top of climb cannot be achieved within one State for particular aircraft performance then other stakeholders from neighbouring States have to be engaged to agree on how airspace users can achieve and maintain continuous climb and continuous descent.

Question 2

WHAT ARE THE REQUIRED STEPS FOR CCO/CDO IMPLEMENTATION?

It was agreed that the first step was to have a policy within the National Air Navigation Plan and the PBN plans and decide what the main objectives are such as accessibility, safety and the environment to inform the procedure design. In addition, there is need to ensure that all stakeholders are involved especially in the procedures design for the successful implementation of CCO/CDO.

Question 3

CONSIDERING THE OUTCOMES/PROGRESS OF THE YAMOUSSOUKRO DECISION AND THE FACT THAT 20 YEARS LATER VERY LITTLE HAS BEEN ACHIEVED, WHAT STRATEGIES DOES AU, AFRAA AND OTHER STAKEHOLDERS HAVE TO ENSURE THAT SAATM SUCCEEDS?

First and foremost an action plan should be developed to ensure the success of SAATM. Similarly, the analysis made by an IATA study on 12 countries within Africa revealed that some of the reasons for the slow pace of the YD was the lack of a robust regulatory framework and issues of competition and therefore, it's not a matter of signing at AU policy level but also cooperation at operational level to address issues brought about by such competition.

Question 4

HOW CAN STAKEHOLDER COORDINATION BE ENHANCED TO SUCCESSFULLY IMPLEMENT SAATM?

In 2018 when the SAATM was introduced stakeholders agreed on the need to develop and adopt a legal framework to support the YD. Since then, regulations for competition and consumer protection have been adopted at AU level. In addition, the dispute settlement mechanism has been drafted and sent to stakeholders for comments. Currently the AU is planning on addressing the issue of cost of operation.

Question 5

WHAT CAN AFRAA AND IATA DO TO BALANCE THE AIR TICKET COST TO MAKE IT ATTRACTIVE?

The cost of operation has not been fully discussed and it is expected that reductions can be achieved through active negotiations with Airlines, Airport Operators, Air Navigation Service Providers and Governments. It should also be recognized that ICAO is a critical supporting pillar in this process.

Pillar 3 of the SAATM Implementation Framework deals with operationalization of SAATM and involves conducting continental workshops on application of ICAO Policies on taxes and charges to reduce the cost of Air Transport and also Resource mobilization to strengthen the Executing Agency of the YD and SAATM. For the regulator, AFCAC has engaged ICAO to carry out capacity building within the continent to empower personnel who will be pivotal in the implementation of SAATM.

6. WRAP UP OF DAY ONE

Eng. Margaret Munyagi gave an overview of the day's presentations and panel discussions. She highlighted the main points discussed some of which constitute the Symposium resolutions.

7. COCKTAIL

At the end of day 1 delegates were treated to a colorful cocktail hosted by Burundi Civil Aviation Authority. The Honorable Minister of Transport, Public Works, Equipment and Land Use Planning Republic of Burundi officially graced the occasion.



Guests, AT THE COCKTAIL

DAY TWO: FRIDAY, 28TH FEBRUARY 2020



DR DANIEL KIRUNDA , MAKES HIS PRESENTATION

E. SESSION II

1. TOPIC FIVE.



ASPECTS OF AVIATION MEDICINE IN FLIGHT SAFETY

By Dr Daniel Kirunda, Centre for Aviation Medicine Consultant, EAC-CASSOA

Dr. Kirunda began by defining Aviation Medicine, as a medical Specialty which combines aspects of preventive, occupational, environmental and clinical medicine. It is concerned with the health and safety of those who fly, both crew and passengers, as well as the selection of those who hold aviation licenses. It is a scientific discipline that involves the study of physiological, operational, psychological and environmental factors that determine the adaptive responses of a human being during flight.

He explained that the objective of Aviation Medicine is to address the degree of human-machine interaction to the best predicted safety margins aimed at making the flight as safe as it can be, provided the rest of other factors are also addressed.

Four steps form the continuous circle of human machine interaction and these are perception of various sensory neural stimuli, interpretation of the stimuli, cognitive formulation of the desired response and employing the right organs and systems of the human body to affect the response.

Dr. Kirunda highlighted the importance of implementation of the existing ICAO medical Standards and Recommended Practices which is done to ensure the health or fitness of the Aviator and in order not to compromise Aviation Flight Safety.

There is therefore, need to check the medical fitness of Personnel who perform flight activities which unless performed properly could jeopardise aviation safety. In addition, Dr. Kirunda presented some of the common medical problems identified following the evaluation of Aviation Personnel such as stress related neurotic, alcohol abuse, flying and psychoactive drugs, Human Immune Deficiency Virus, Fatigue in flight operations, Hazards of Medications and drugs, Hypertensive heart disease, Metabolic / endocrine disease – Diabetes mellitus, Vision defects and Obesity.

2. TOPIC **SIX.**



GLOBAL SURVEILLANCE FROM SPACE BASED ADS-B: NO MORE DEPENDENCIES FROM GROUND SENSORS

By Mr. Michele Carandente, Regional Director EMEA Aireon



DR MULAMULA, MAKES HIS PRESENTATION

Dr. Mulamula in his presentation informed the delegates that in January 2018 the AU Executive Council accepted the recommendations of a report by the High-Level African Panel on Emerging Technologies to prioritise Drones on the Horizon as one of three key emerging technologies for African Development.

Following the CASSOA UTM workshop held in Zanzibar in November, 2019 the African Drone Forum (ADF) was held in Rwanda, Kigali in February, 2020. The main objective of ADF was to trigger a dialogue between all stakeholders (National, Regional & International) in the UAV eco-system as bringing together Industry, Regulators, Development Partners is beneficial.

It was realized that the Industry is ready and Development Partners are engrossed, Regulators are interested and Government sectors want to do more to support use-cases.

The Lake Kivu competition was also coordinated to test the viability of the technology to provide solutions in use-cases for service delivery and NOT to tell how to do it. It was evident that there are different UTM options, various regulatory innovations are possible and there is an appetite for cross-border services. Some important lessons were learnt that indicate that there is no one perfect UTM that will last 10yrs given that it was evolving with new sensors, info feeds, digitization, etc.

He informed the plenary that the main aim of African Drone Forum is to catalyse a drone eco-system & market and that the World Bank & ADF had shown that there is a demand for such an eco-system

He suggested that East Africa can create a technological platform “back-end” as a base foundation allowing member countries to build their own stacks depending on individual regulations and that Local companies & African innovation can then build the “front-end” stacks generating innovation and employment, linked to use-case service where necessary in partnership with international entities.



MR. KOTTENBRINK, PRESENTS ON EMPIC

3. PRESENTATION **FOUR.**



THE STANDARD SOFTWARE FOR REGULATORS

By Jörg K. Kottenbrink, EMPIC

Mr. Kottenbrink introduced EMPIC as a company that has developed a standard software for regulators with the aim of providing effective and sustainable safety oversight. It was founded in November 2001 and is located in Erlangen, Germany. He noted that there were challenges on effective and sustainable Safety Oversight include growth and complexity of aviation system, provision of necessary resources to CAAs, political will and budgetary resource allocation. There needs to be a balance between the cost of establishing and sustaining the CAAs and the ability of the industry and stakeholders to contribute to the funding of such a system.

EMPIC is a solution built by regulators for with a mission to continuously evolve and maintain its position as the standard software solution for aviation regulators, delivering assured compliance with all aspects of national, regional and international regulation. Currently, EMPIC has been adopted by over 30 regulators globally.

The presenter described the key factors of EMPIC including 18 years' experience (understanding customer needs/challenges), making right decisions based on live data in all areas, modules covering all critical authority obligations, fully configurable, fully integrated, a vibrant user community and support, future-proofed investment (sustainable) and is built by regulators for regulators.

4. TOPIC SEVEN.



TECHNOLOGY & RISK FACTORS, AIR AMBULANCE SERVICES

By Mr. Rufu Mutwol and Mr. James Manono

AMREF Flying Doctors is a company, limited by guarantee, wholly owned by AMREF Health Africa whose objective is to generate income to help AMREF Health Africa achieve fundraising, financial and Outreach Programme obligations. It is the largest and best-known air ambulance provider in the region and Internationally accredited by EURAMI (European Aeromedical Institute).

In their presentation, Mr. Mutwol and Mr. Manono informed delegates that AMREF Flying Doctors has a fleet of five aircraft, dedicated air ambulance, four ground ambulances (three of which have Advanced Life Support), an Operations & Emergency Control Centre (OECC) located at Wilson Airport, Aircraft Hangar, professional fulltime medical crew and aircrew (trained internationally), state of the art medical emergency equipment, operates 24-hr and has specialized and approved for in-flight patient management.

They introduced Maisha, an air ambulance plan from AMREF Flying Doctors offering different levels of annual cover for individuals, families, small groups and corporates determined by the area of coverage. The presenters outlined the benefits of Maisha that include access to our 24hr Medical helpline from anywhere for medical advice, unlimited evacuation flights per year for medical emergencies, unlimited ground ambulance transfers within Kenya and direct contact with AMREF Flying Doctors and the medical professionals (no third party).



AMREF PRESENTERS , MR. MUTUOL AND MR. MANONO



THIRD PANEL SESSION MEMBERS: MR. RUFUS MUTWOL MR. JORG KOTTENBRINK, DR. DANIEL KIRUNDA, DR. ENG. GEORGE MULAMULA, MR. AKETCH KEYSTONE, MR. RODGERS MANANA, DR. PATRICE BARASUKANA AND MR. REDEMPTUS BUGOMOLA. ,

5. THIRD PANEL DISCUSSION

The third Panel was moderated by Mr. Redemptus Bugomola and included members, Dr. Daniel Kirunda, Dr. Eng. George Mulamula, Mr. Aketch Keystone, Mr. Rodgers Manana, Mr. Jorg Kottenbrink, Dr. Patrice Barasukana and Mr Rufus Mutwol.

The third panel discussed the presentations from the third session and addressed the following questions and comments from the plenary:

Question 1

DOES AMREF CONSIDER MAINTAINING THE PC-20 AND CHOPPERS FOR QUICK REACH AND RAPID TRANSPORT EMERGENCY EVACUATION?

AMREF currently owns a Pilatus PC-12 Aircraft and is considering expanding their fleet to include helicopters to enhance rapid emergency evacuation

Question 2

IF A PILOT ABOVE 65 YEARS OF AGE CAN TRAIN PILOTS, WHY CAN'T THEY FLY?

The environment in which the pilot operates is different from the environment in which the pilot trains. It should be noted that cognitive functions at 65 years of age tend to decrease making it difficult for the pilot at that age to operate in difficult flying environments.

Question 3

WHAT IS THE LEVEL OF AIRPORT PREPAREDNESS FOR PUBLIC HEALTH EMERGENCIES IN EAC PARTNER STATES?

The airport preparedness assessments started in 2014 and is being done annually. The results of the assessments indicate that there is need to enhance our airport preparedness for public health emergencies. In addition, CASSOA has coordinated basic aviation medicine training and continues to organize bi-annual refresher training in collaboration with other trainers.

Question 4

HOW CAN THE ISSUE OF STRESS AND SUBSTANCE ABUSE AMONG YOUNG PILOTS BE RESOLVED?

Stress and substance abuse is prevalent among pilots below the age of 40 years. The Manual of Aviation Medicine ICAO Doc 8984 emphasizes that during the medical assessment process attention should be given to pilots below the age of 40 years. Proposals to carry out random tests for flight personnel have been made and there is need to take collective decision to adopt this measure for control of substance abuse.

Question 5

HOW CAN PSYCHOSOCIAL ISSUES BE DEALT WITH IN AIRLINES?

The employers or airlines should train and employ qualified aviation psychologists and in addition, the immediate supervisors of the pilots should be equipped with basic skills to deal with these psycho-social issues.

Question 6

IS THERE ANY REQUIREMENT FOR AIRLINES TO HAVE DOCTORS ON BOARD TO DEAL WITH ANY MEDICAL EMERGENCIES?

This although very good is not very feasible.

Question 7

WHAT IS THE LEVEL OF COLLABORATION OF AVIATION MEDICINE EXPERTS WITH AIRCRAFT MANUFACTURERS AND DRONE OPERATORS AS A PROACTIVE MEANS OF IMPROVING AIRCRAFT DESIGN?

Currently there is only a requirement for Aviation medical assessors and examiners to interact with airline operators through familiarization exercises and none for aircraft manufacturers. Drone operators only participate in the development of aviation medicine regulations pertaining to and related to drone operations.

Question 8

WITH ONLY THIRTY-SIX TRAINED AVIATION DOCTORS VERSUS THE MANY LICENSED AVIATION PERSONNEL AND OVER THREE THOUSAND REGISTERED AIRCRAFT IN THE EAST AFRICAN REGION, HOW ARE THE DOCTORS COPING?

There has been continuous effort to train and qualify more Aviation Medical Doctors to reduce the current demand. However, this is relatively slow compared to the ever increasing demand.

Question 9

THE ISSUE OF SPATIAL DISORIENTATION HAS NOT BEEN ADEQUATELY COVERED BY ICAO ANNEX 1, WHAT IS THE WAY FORWARD?

Spatial disorientation is based on information received by the eyes and inner ears and when one is airborne, he or she is subjected to accelerated changes. There are pre-disposing conditions that contribute to spatial disorientation such as fatigue, hypoxia, drug and alcohol abuse that should be mitigated against using appropriate corrective measures as well as Upset Recovery Training (UPRT).

Question 10

THERE IS A NEW REQUIREMENT TO IMPLEMENT A FATIGUE RISK MANAGEMENT SYSTEM BY NOVEMBER 2020. WHAT ARE THE PRACTICAL STEPS THAT THE ANSPS CAN TAKE IN ORDER TO IMPLEMENT FATIGUE RISK MANAGEMENT FOR ATCS?

Fatigue Risk Management (FRM) is a relatively new subject and guidance for its implementation is being followed as appropriate.

Question 11

WHAT IS THE SCOPE OF THE PROPOSED UTM IN TERMS OF REGULATIONS AND AIRSPACE MANAGEMENT?

Currently the scope of UTM Project covers the regulations which in turn are expected to add value to the airspace management.

Question 12

WHAT ARE THE POSSIBILITIES OF SEGREGATION OF THE AIRSPACE?

Technology is always evolving and currently integration of the first two layers is being implemented. However, it needs to be done in a safe and secure manner through effective regulation.

Question 13

WHAT ARE SOME OF THE LESSONS LEARNT FROM THE COUNTRIES THAT HAVE IMPLEMENTED USE OF UAVS FOR HUMANITARIAN PURPOSES?

The use of UAVs is considered in three areas, i.e. economic commercial and social. In the last two years it has been found that it easier to deliver UAVs social services to areas that are hard to reach. In the economic side of it job creation, innovation, infrastructure support for example use of UAVs to measure pavement conditions. UAVs may be used for both public and private purposes.

Question 14

WHAT IS THE COST OF OPERATION AND MAINTENANCE OF EMPIC IN THE LAST 20 YEARS?

As more features are added there is need to have more employees on board which in turn increases the cost of operation.

Question 9

HAS THE EMPIC SOFTWARE BEEN INTEGRATED TO INCLUDE PROVISIONS FOR SSP IMPLEMENTATION?

EMPIC data collected is a basis for State Safety Oversight Programme (SSP).).



F. SESSION IV



ENG. BESTA, PRESENTING ON ACD-M

1. TOPIC SEVEN.



AIRPORT COLLABORATIVE DECISION MAKING (ACD-M)

Eng. Mohamed Besta, Director Technical EAC-CASSOA

Eng. Besta defined Collaborative decision-making (CDM) as a process focused on how to decide on a course of action articulated between two or more community members. Through this process, ATM community members share information related to that decision and agree on and apply the decision-making approach and principles.

He explained that A-CDM is a set of processes developed from the general philosophy of CDM in aviation and is applied to the operations at aerodromes. Its scalable and modular and allows aerodromes, aircraft operators, air traffic controllers, ground handling agents, pilots and air traffic flow managers to exchange operational information and work together to efficiently manage operations at aerodromes.

The benefits of ACD-M include efficiently managing the turnaround of the aircraft, Developing and maintaining a fully transparent way of operations at the airport. It also provides service improvements in all related domains as a result of enhanced multiparty coordination and cooperation in operation aspects.

2. TOPIC EIGHT.



ICAO TRAVELLER IDENTIFICATION PROGRAMME (ICAO TRIP) STRATEGY

By **Mr. James Mabala**, Regional Officer AFI SEC/FAL ICAO ESAF

Mr. Mabala said that the ICAO TRIP Strategy was adopted by the 38th session of ICAO Assembly held from 24th September to 4th October, 2013. It is a traveller identification management programme aimed at leading and reinforcing a global approach, providing direction for action by ICAO, States and partners in traveller identification management. ICAO TRIP presents a framework for multidimensional integrated efforts and synergies, under ICAO's leadership, to support ICAO's Strategic Objectives.

He also added that there is a key proposition for States, ICAO and stakeholders to address (both individually and collectively) a holistic, coherent, coordinated approach. The interdependent elements of traveller identification management are essential, encompassing the following elements, namely evidence of identity, MRTDs the design and manufacture, document issuance and control, inspection systems and tools interoperability.

The vision for ICAO TRIP is that all Member States can be able to uniquely identify individuals (with the highest possible degree of certainty, security and efficiency). It also contributes to the capacity of Member States to uniquely identify individuals by providing appropriate authorities worldwide with the relevant supporting mechanisms to establish and confirm the identity of travellers. It provides the basis for a detailed Business Plan to be developed, commensurate with resources available, and corresponding actions to be taken.



MR. MABALA, PRESENTING ON ICAO TRIP STRATEGY

TRIP will also enhance aviation security and facilitation through uniform and progressive development of travel document SARPs, guidance material and providing assistance to States for effective and efficient travel document and border control systems.

Mr. Mabala noted that TRIP would also contribute towards border integrity, air maritime and surface transport settings benefits while extending the contribution of ICAO beyond border integrity at international airports. In future it will bring significant enhancement in aviation security and facilitation by bringing together the elements of holistic identification management into an integrated result-oriented framework.

3. TOPIC **NINE.**



THE PATH TO THE SADC UPPER AIR SPACE CONTROL/MANAGEMENT CENTRE (CHALLENGES AND ACHIEVEMENTS)

By **Mr. Thabani Mthiyane** P.R. Eng, MBA, Managing Director Dasitha (Pty) Ltd



MR. THABANI , MTHIYANE

Mr. Mthiyane said that the SADC UACC will provide air traffic control facilities and services, to ensure the safe, efficient and expeditious flow of air traffic through the SADC upper airspace beyond 24 500 feet above sea level. It has been assumed that the scope of operation is ATS only, as MET, SAR and AIS services are separately organised and provided on an internationally co-ordinated national basis.

He also said that in order to provide the facilities and services mentioned above, the SADC UACC centre will collect en-route charges from Airlines. The SADC UACC will not be fully owned and controlled by the States, as a newly established entity or a private investor may take a significant part of the shares of the new company. The States will no longer be the direct operators in the upper airspace, but they will keep their role of regulatory authorities.

In conclusion, there is a call to Implement SAATM, implement joint procurement strategies, remove duplication of CNS infrastructure, implement joint regulation as an enabler, regulatory framework affecting ATM/CNS systems, implementation of governance framework on regulation and service provision.

4. FOURTH PANEL DISCUSSION

In the fourth panel Mr. Deus Niyonkuru was the moderator while other panelists included Eng. Mohamed Besta, Ms. Jane Nakimu, Mr. James Mabala, Mr. Thabani Mthiyane, Ms. Erica Chebet and Mr. Salim Musangi.



MR. JAMES MABALA, MR. THABANI MTHIYANE, MS. JANE NAKIMU, MR. DEUS NIYONKURU, MR. SALIM MUSANGI, MS. ERICA CHEBET AND ENG. MOHAMED BESTA,

The fourth panel addressed the following questions from the plenary:

Question 1

WHY HAVEN'T STATES IMPLEMENTED PASSENGER IDENTIFICATION YET AIRLINES HAVE ALREADY DONE SO?

Although many airlines with wider operations have already implemented Passenger Name Record (PNR) but the benefits from other border control agencies can't be realized if the single transmission of information is not implemented. From an operator point of view since the passenger identification information is initially captured by the booking system but needs to be integrated with the airport management system.

Question 2

FOR HOW LONG CAN THE AIRLINE BE ABLE TO KEEP THE PASSENGER INFORMATION IN CASE IT NEEDS TO BE VERIFIED FOLLOWING AN INCIDENT?

In the airline and travel industry, a Passenger Name Record (PNR) is a record in the database of a computer reservation system (CRS) that contains the itinerary for a passenger, or a group of passengers travelling together. The concept of a PNR was first introduced by airlines that needed to exchange reservation information in case passengers required flights of multiple airlines to reach their destination (interlining). For this purpose, International Air Transport Association (IATA) and Air Transport Association of American (ATA) have defined standards for interline messaging of PNR and other data through the Reservations Interline Message Procedures - Passenger (AIRIMP)

In most airline systems PNRs are purged (removed) the day after the last segment (generally a flight, but could be car or hotel) has been completed. They are then copied to a backup system as read-only data. Precise retention period may vary according to the airline and the regulatory environment(s) in which they work. usually passenger data must be anonymized after thirty days and the anonymous data is then retained for a minimum period of at least five years

Question 3

HOW CAN CASSOA ASSIST IN HARMONIZING THE LIST OF ITEMS PROHIBITED IN DIFFERENT COUNTRIES WITHIN THE EAC REGION?

Prohibited items refers to items which could be used to carry out or facilitate someone to commit an act of unlawful interference. The guidance on prohibited items in civil aviation is listed in Appendix 43 of the ICAO Security Manual Doc 8973. However, it is worth noting that, this list might not be exhaustive. But, in the context of civil aviation, anything related or similar to what falls in the categories or groups of prohibited items even if is not listed in ICAO list of prohibited items is considered a prohibited item, provided it can be used or can facilitate commission of an act of unlawful interference. States define different types of prohibited items based on a risk assessment carried out by the relevant national authorities and taking into consideration the local environment.

The available means for a passenger to be aware of prohibited items that may be allowed in one State but not allowed in other State is through travel information published in the website of that State

It is important to familiarize oneself with the State of destination airport security information prior to commencing the journey. However, it is important for passengers to understand the general list of prohibited items as listed in ICAO list of Prohibited items. This is normally displayed at airports to guide passengers on what to carry and on what is not allowed. When a passenger is not certain whether an item is allowed or not in another State, it is important to place such items in the hold baggage (not carry-on-baggage). A good example is that some airports allow carriage of cigarette lighters in hand luggage while other state don't allow. In some airports carriage of duty free items purchased from other airports such as alcohol beverage etc. is prohibited. It can be concluded that, there is no one fits all rule as far as prohibited items in civil aviation is concerned since the decision depends on individual State established policy which is aimed at safeguarding civil aviation against acts of unlawful interference.

EAC-CASSOA has developed Model EAC Civil Aviation (Security) regulations and Model EAC National Civil Aviation Security Programme (NCASP) for harmonization by the EAC Partner States. The following is a list of harmonized prohibited items adopted from ICAO Security Manual Doc 8973:

- **GUNS, FIREARMS AND OTHER DEVICES DESIGNED TO CAUSE SERIOUS INJURY BY DISCHARGING A PROJECTILE, OR CAPABLE OF BEING MISTAKEN FOR SUCH DEVICES E.G. TOY GUNS;**
- **STUNNING DEVICES DESIGNED SPECIFICALLY TO STUN OR IMMOBILIZE;**
- **OBJECTS WITH SHARP POINTS OR SHARP EDGES CAPABLE OF CAUSING SERIOUS INJURY;**
- **BLUNT INSTRUMENTS CAPABLE OF CAUSING SERIOUS INJURY;**
- **EXPLOSIVES AND INCENDIARY SUBSTANCES AND DEVICES CAPABLE CAUSING SERIOUS INJURY OR THREATENING THE SAFETY OF AIRCRAFT; AND**
- **LIQUID, AEROSOLS AND GELS (LAGS) AS SPECIFIED IN THE GUIDANCE MATERIAL FOR SECURITY CONTROLS OF LAGS.**

Question 4

WHAT EFFORT IS ICAO PUTTING IN PLACE TO ASSIST STATES THAT MAY BE LEFT BEHIND IN IMPLEMENTATION OF THE REQUIREMENT FOR MACHINE READABLE TRAVEL DOCUMENTS WITHIN THE SET TIMELINES?

ICAO has issued guidance on machine readable documents which is ICAO Doc 9303 and also conducts various programmes for machine readable travel documents in order to assist the States to comply. One of the programmes is the ICAO TRIP strategy which aims to establish the goal and objectives of traveler identification management, to lead and reinforce a global approach and to provide direction for action by ICAO, States and other international, regional and industry Partners in identification management.

Question 5

HOW CAN THE ISSUE OF PASSENGERS WITH MULTIPLE NATIONALITIES BE EFFECTIVELY HANDLED?

This challenge was addressed by immigration and aviation security in the respective States

Question 6

WHAT CHALLENGES EXIST AS FAR AS PREDICTABILITY OF EVENTS IS CONCERNED IN TERMS OF AIRPORT COLLABORATIVE DECISION-MAKING (ACD-M) PARTICULARLY IN THE EAC PARTNER STATES?

ACD-M is an industry practice aimed at improving efficiency through predictability and currently even with the limited traffic in the region the absence of collaboration between players continues to reduce predictability. The ACD-M if implemented as one of the ASBU blocks will improve efficiency at airports within the region.

An example cited was that of Mombasa International Airport where there is evidence of fast decision making and better information flow and overall safety following implementation of ACD-M even with major rehabilitation works ongoing.

G. RESOLUTIONS OF THE 5TH EAC AVIATION SYMPOSIUM

During the 5th EAC Aviation symposium held at Hotel Club Du Lac Tanganyika, Bujumbura, Burundi the following resolutions were proposed and adopted on 28th February, 2020:

1. *The Partner States to enhance their efforts in improving performance in the areas of Aircraft Accident and Incident Investigation (AIG), Flight Operations (OPS), Aerodromes and Ground Aids (AGA).*
2. *The Partner States to increase collaboration amongst technology developers /manufacturers and regulators as a means of keeping up to date with the ever-changing technologies.*
3. *Partner States are requested to delegate functions for which they do not have adequate capacity to CASSOA under the GASOS framework.*
4. *Partner States are requested to implement free routing in the continental and oceanic airspace over East Africa Community States and set-up a Free Routing Implementation Project Team including Regulators, Air Navigation Service Providers, Airlines and other stakeholders.*
5. *States to review their National Policies in regard to PBN Road map and align them with the objectives that will support CCO/CDO implementation and make use of the technical support available with Africa Flight Procedure Programme (AFPP).*
6. *Partner States who have not yet signed the Solemn Commitment to join SAATM (Burundi, South Sudan, Tanzania and Uganda), are requested to do so preferably by the end of 2020*

7. *CASSOA to collaborate with AFCAC and AUC to ensure active participation of Air Transport experts from EAC Partner State CAAs and ministries responsible for Air Transport to the awareness, capacity building programs and experts working group meetings. Additionally, CASSOA to collaborate with AFRAA to establish by the end of 2020 a platform of regional airlines in EAC to regularly meet and discuss their roles in the implementation of SAATM.(AFCAC website www.afcac.org).*
8. *Regional open skies initiative to be supported by a policy for EAC States.*
9. *Organize or conduct an EAC Regional meeting in collaboration with the Regional ICAO-ESAF and World Health Organization with the objective of developing a multi sectoral Public health emergency preparedness response and intervention strategies for the Covid-2019 pandemic and other pandemics. Furthermore, Partner States are urged to step-up or enhance their surveillance on Public health events/communicable diseases spread at the international Airports.*
10. *CASSOA to partner with the World Bank & ADF to support what the EAC Partner States to develop.*
11. *The Partner States through CASSOA to coordinate with the World Bank to guide the next steps to implement a regional UTM “Back-End” framework to support a common infrastructure and impact economic development in the region, while allowing each country to tender their own “Front-End” system as per their requirements/regulations.*
12. *Work with the ADF and World Bank to scale up UAV (drone) operations & infrastructure for the benefit of the region while building capacity. The World Bank & ADF are willing to help, but require from the region a concrete demand and strategic request.*
13. *That CASSOA and stakeholders to support promotion of the globally-harmonized implementation of Airport Collaborative Decision-Making, including best practices and global technical standards.*

H. SYMPOSIUM CLOSURE



Capt. David Subek, Director General, SSCAA gave a vote of thanks on behalf of the CASSOA Board where he expressed his gratitude to the government of Burundi for graciously hosting the symposium and the people of Burundi for their warm hospitality. He also appreciated all the sponsors for their financial support towards delivering a successful symposium.

Thereafter, the symposium was declared closed by Mr. Emmanuel Habimana the Director General, BCAA

THE STAFF OF EAC CASSOA



CONTACT US: P.O.BOX 873 Entebbe
Plot 41/43 Circular Road

TEL: +256 - 312 266 930
+256 - 414 322 047

FAX: +256 - 414 322 049

FOLLOW US: www.cassoa.org
cassoa@cassoa.org

