INTERNATIONAL CIVIL AVIATION ORGANIZATION
WESTERN AND CENTRAL AFRICAN OFFICE

First Meeting of the APIRG Airspace and Aerodrome Operations Sub-Group (AAO SG/1)

(Dakar, Senegal, 29 to 31 May 2017)

Agenda Item 3: East African Community Upper Flight Information Region – EAC UFIR Implementation

[**EAC UFIR**]

(Presented by Kenya/Kenya Civil Aviation Authority)

SUMMARY
This paper presents an overview of the ongoing initiative within East African Community in as far as management of the upper airspace over the Partner States is concerned. Action by the meeting is at **paragraph 3.**
REFERENCES - EAC UFIR Follow-on Study Report - EAC UFIR Implementation Plan - APIRG 19 Report - ASBU Implementation Plan

1. INTRODUCTION

a) The broad goal of the EAC is to enhance cooperation for the mutual benefit of Partner States;

b) The Treaty was signed on 30th November 1999 and entered into force on 7th July 2000. 3 original Partner States, Kenya, Uganda Tanzania). Burundi, Rwanda acceded to EAC Treaty in June 2007 and became full members from July 2007. Republic of South Sudan was officially admitted in 2016 The EAC UFIR Follow – On Study was concluded in January 2016;

c) The Treaty outlines a comprehensive system of cooperation among the Partner States in

- Trade
- Investment

- Industrial development
- **Infrastructure and services among others**

  EAC Treaty Chapter 15; Cooperation in Infrastructure and Services Article 92 (Civil Aviation and Civil Air Transport) requires the establishment of a Unified **Upper Area Control System.**

d) A roadmap toward the establishment of an EAC Upper Flight Information Region (UFIR) controlled by one Upper Area Control Center (UACC) was developed. USTDA funded a Feasibility Study for the EAC UFlR Project which included participation of FAA. The Feasibility Study was conducted by DORS Incorporated with final report presented in March 2009.

e) Expansion of EAC to include Burundi and Rwanda, the need to assess sustainability of the lower airspace while keeping pace with technological advancement, necessitated EAC to undertake a Follow-On Study.

f) Heads of CAAs & Airports recommended using internal resources. This was approved by EAC Sectoral Council on Transport, Communication and Meteorology (TCM) in 2011. EAC Secretariat was directed to coordinate the execution of the Follow - On Study.

g) A Project Team composed of 5 experts from Partner States (Burundi, Kenya, Rwanda, Tanzania and Uganda) was formed with every Partner State providing a lead expert as follows:

- ATM – Kenya
- CNS – Uganda
- AIS/AIM – Tanzania
- Legal and HR – Rwanda
- Finance and Planning – Burundi
- EAC Secretariat – Coordination

The Project Team was assisted by resource persons from Partner States in the various specialized areas.

2. DISCUSSION

2.1 The USTDA Feasibility Study included creation of a single block of upper airspace (airspace above FL 245) over Tanzania, Kenya and Uganda operating from a single area control center and recommended 3 sectors.

2.2 The study was not conclusive enough in areas related to:

- Legal
- CNS
- ATM
- AIS/AIM
- HR
- Finance
- No consideration of sustainability of the lower airspace (below FL 245)

- Effects of new technology that enable seamless ATM operations

2.3 From the Follow – On Study, actual traffic volume movement statistics for fourteen (14) consecutive days indicate that the Upper airspace (Above FL 245) for Kenya, Tanzania and Uganda was found to have more traffic than the Lower airspace (Below FL 245). In the case of Burundi and Rwanda, the Lower airspace has more traffic compared to the Upper airspace.

2.4 Based on the data collected including movement projections and taking into account the ongoing investments within Partner States to enable movement from ASBU Block 0 to Block 1, the project team decided to redesign the airspace and two models were found workable (seamless and centralized operations). Seamless operations entail sharing of CNS/ATM systems within Partner States at the various control centers in a cooperative and intraoperative manner while Centralized operations entail having one control center housed at one location.

2.5 The Project Team also aligned the study with the ongoing ICAO ASBU requirements and initiatives in Partner States. The study proposes to have a two phase approach of implementation:

- Phase 1 (Seamless Operations with current airspace set up);
- Phase 2 (Centralized Operations where all ACCs will be located at one center). This will only be decided upon conclusions made from a monitoring and evaluation process on the effectiveness of Phase 1.

2.6 Project milestones;

- Inception Report
- Baseline Report
- Airspace Redesign and Redesign of ANS System Architecture
- Sustainability of Lower Airspace
- Cost Benefit Analysis, Risk Analysis, Development Impact
- Analysis and Safety Analysis
- Final Report

2.7 Implementation plan

- To enable interoperability and seamlessness for the Air Navigation Services
- Enhancement of collaborative activities in the provision of Air Navigation Services
- Implementation/Development of National Aeronautical Information Databases
- Development and operationalization of the Centralised Regional Aeronautical Information Database
- Establishment of EAC Upper Flight Information Region (UFIR)
- Establishment of annual monitoring and evaluation of the performance of Seamless Phase to build the required experience and preparedness for the Centralized Phase
- Enhancement of Safety and Security
- Enhancement on Training, Research and Development

- Implementation of harmonized Safety Oversight
- To provide effective maintenance of CNS/ATM/AIM facilities
- To ensure provision of reliable Power supply and protection systems.
- To establish regional and national requisite policy, legal and regulatory framework for seamless operations
- Establish a regional coordination framework
- To manage the project identified risks

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) Take note of the developments in East Africa in as far as airspace management is concerned.

b) Urge ICAO to expedite the priority project on SSR code assignment and allocation to enable reap the benefits of seamless operations.

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