



# AIM RBIS Project – Workshop on Go-team methodology

## Experience sharing on AIXM implementation

Presented by: Elias Korir

*Virtual July 2022*



# Outline

- Introduction
- Description of the implementation process
- Challenges encountered
- Lessons & recommendations



# Introduction

- Kenya Civil Aviation Authority is a government agency established by a Civil Aviation Act to:
  - Regulate and oversight Aviation Safety
  - Provide Air Navigation services, and
  - Train of aviation personnel
- AIM, ATS and CNS support KCAA to achieve the mandate of provision of Air Navigation Services.



# Introduction

- AIM department implemented first Automation in year 2006 with AIXM version 3.5
- Second Upgrade AIXM 4.5 in the year 2010
- AIXM 5.1 replaced the then existing AIXM 4.5
- The AIXM application has provided a platform for
  - Provision of digital aeronautical data.
  - Production of printable AIP and electronic AIP in html.



# Description of the implementation process

- The following steps were taken by the AIM department during implementation of AIXM 5.1:
  - Development of a roadmap for implementation of AIXM 5.1,
  - Development of technical specifications AIXM 5.1 database
  - Procurement and acquisition of the AIXM application system
  - Installation and upgrade of hardware and software to support the application.



# Description of the implementation process

- Training of AIM and technical personnel on handling of AIXM application system.
- Training of AIM personnel to be conversant with AIXM conceptual and exchange models.
- Incorporation of QMS on data handling processes.
- Signing of LOU/LOA with data providers for timeliness of data provision.



# Challenges encountered

- Kenya encountered the following challenges and wish to share the experience with other States;
  - Inadequate financial resources;
  - Development of adequate quality checks systems on aeronautical data;
  - Less application capability including querying digital data sets;-
  - Efficiency of the application due to bulk data;



# Challenges encountered

- Understanding 3<sup>rd</sup> party's software that support Oracle database eg. Java ++ Tom-cat application;
- Migration of data from legacy AIS documents;
- Training on the usage of the application
- Occasional AIXM application system malfunctioning



# Recommendations

- States to adopt appropriate organization of the AIXM infrastructure, such that the datasets in the database occupy the central part of the system.
- Maintenance of data consistency, to avoid availability of different copies of data sets of the same features in AIXM domain.
- Enhance AIXM system capability to include:
  - Adequate AIXM data sets exchange capability such as AMHS and Web services/APIs
  - Querying and download capability of AIXM data sets in XML format



# Recommendations

- Adequate benchmark on the AIXM databases vendors to be done to ensure that the State's requirements are fulfilled in-line with the ICAO recommendations as well as the AIXM provisions.
- Adoption and use of the latest version of AIXM, which will endeavor to enhance system functionality as well as provision of solution to previously encountered challenges.
- States in AFI region to consider training of the AIS/AIM personnel on the concepts and the structure of AIXM to fasten the implementation of AIXM.



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