ICAO SEMINAR/WORKSHOP IN ADDIS ABABA, ETHIOPIA
AVIATION SYSTEM BLOCK UPGRADES (ASBU)
(17-19 NOVEMBER 2014)

- **CURRENT STATUS OF IMPLEMENTATION**
- **PLANNING PROCESS**
- **PLANNING AND IMPLEMENTATION EXPERIENCES**

Presentation by KENYA

Participants

- Andrew Ochieng

- David Ondieki

- Erick Meli

ASBU ACTIVITIES

- KCAA has conducted two in-house awareness workshops on ASBU for stakeholders and staff (ANS & Regulator-CAA)

- The participants were split into four groups and each given exercises to fill the Air Navigation Report Forms for one of the four Performance improvement Areas.

- Staff sensitization an on going process

- The KCAA has reviewed its strategic plan 2010-17 to incorporate the implementation of ASBU modules (Block 0)

- This action guarantees funding for the upgrades

IMPLEMENTATION STATUS OF ASBU BLOCK 0 MODULES

IMPLEMENTATION STATUS OF ASBU BLOCK 0 MODULES
PERFORMANCE IMPROVEMENT AREA 1: AIRPORT OPERATIONS

MODULE	OBJECTIVE	ELEMENTS	TARGETS AND IMPLEMENTATION PROGRESS (GROUND AND AIR)
B0-15/RSEQ	Improve Traffic Flow Through Runway Sequencing (AMAN/DMAN)	ATFM	To be implemented by December 2017
B0- 65/APTA	Improved Airport Accessibility	WGS84	Completed in JKIA, MIA and EIA
		Implementation of GNSS-based approaches	Implemented
		SIDs	Implemented
		STARs	Implemented
B0-70/ WAKE	Increased Runway Throughput through Wake Turbulence Separation	Aerodrome Design	None
		Runway Operations	None

B0-75/SURF	Improved Runway Safety (A-SMGCS Level 1-2)	Surveillance system for ground surface movement (PSR, SSR, ADS B or Multilateration)	PSR & SSR Implemented ADS-B and MLAT to implemented by June 2016
		Surveillance system on board (SSR transponder, ADS B capacity)	SSR Transponder Implemented ADS-B to be implemented by June 2016
		Surveillance system for vehicle	June 2018
		Visual aids for navigation	December 2015
		Wild life strike hazard reduction	December 2015 Aerodrome operator/wildlife committee
		Display and processing information	June 2016
B0-80/ACDM	Improved Airport Operations through Airport-CDM	Airport –CDM	December 2015

PERFORMANCE IMPROVEMENT AREA 2: GLOBAL INTEROPERABLE SYSTEMS AND DATA– THROUGH GLOBALLY INTEROPERABLE SYSTEM WIDE INFORMATION MANAGEMENT

MODULE	OBJECTIVE	ELEMENTS	TARGETS AND IMPLEMENTATION PROGRESS (GROUND AND AIR)
B0-30/DATM	Service Improvement through Digital Aeronautical Information Management	1. QMS for AIM	Implemented
		1. e.TOD implementation	Implemented
		1. WGS-84 implementation	Implemented
		1. AIXM implementation	Implemented
		1. E-AIP implementation	Implemented
		1. Digital NOTAM	December 2016
B0-105/AMET	Meteorological information supporting enhanced operational efficiency and safety	1. WAFS	December 2016
		2. IAVW	December 2016
		3. Tropical cyclone watch	December 2016
		4. TAF	Implemented
		5. QMS/MET	Implemented
		6. D-ATIS	Implemented
		7. AWOS	Implemented
		8. VOLMET	Implemented
		9. D-VOLMET	Dec 2016
B0-25/FICE	Increased interoperability, efficiency and capacity through Ground – ground Integration.	1. AIDC	December 2016
		1. AMHS	Implemented

PERFORMANCE IMPROVEMENT AREA 3: OPTIMUM CAPACITY AND FLEXIBLE FLIGHTS

MODULE	OBJECTIVE	ELEMENTS	TARGETS AND IMPLEMENTATION PROGRESS (GROUND AND AIR)
B0-10	Improved Operations through Enhanced En-Route Trajectories	PBN	Implemented
		Flexible use of airspace	Dec 2016
B0-35	Improved Flow Performance through Planning based on a Network-Wide view	A-SMGCS	Done
		MLAT	Dec 2016 (JKIA, MIA)
		ADS- B APT	N/A
B0-84	Initial Capability for Ground-Based Cooperative Surveillance	ADS-B	Planned for implementation by 2016
		MLAT	Planned for implementation by 2016

PERFORMANCE IMPROVEMENT AREA 3: OPTIMUM CAPACITY AND FLEXIBLE FLIGHTS

B0-85	Air Traffic Situational Awareness (ATSA)	Airport Surface Detection Equipment (ASDE)	Fully implemented in 2010 through ASMCG
		Area proximity warning (APW)	Implemented through Eurocat System
B0-86	Improved access to Optimum Flight Levels through Climb/Descent Procedures using ADS-B	Use of ADS-B	Planned for implementation in 2016
B0-101	ACAS Improvements	ACAS improvements from version 6.4 to 7.1	Planned for implementation by 2018
B0-102	Increased Effectiveness of Ground-based Safety Nets	Airport Surface Detection Equipment (ASDE)	Implemented
		Area proximity warning (APW)	Implemented

PERFORMANCE IMPROVEMENT AREA 4: EFFICIENT FLIGHT PATH

MODULE	OBJECTIVE	ELEMENTS	TARGETS AND IMPLEMENTATION PROGRESS (GROUND AND AIR)
B0-05/CDO	Improved Flexibility and Efficiency in Descent Profiles (CDO)	CDO Implementation	Dec. 2016
		PBN STARs	Implemented
B0-20/CCO	Improved Flexibility and Efficiency in Departure Profiles (CCO)	CCO Implementation	Dec. 2016
		PBN SIDs	Implemented
B0-40/TBO	Improved Flexibility and Efficiency the initial application of Data Link En-Route	ADS-C over oceanic	Dec. 2015
		Continental CPDLC	Dec. 2015

IMPLEMENTATION CHALLENGES

- Funding of new facilities required

- Aircraft equipage

- Development of procedures

- Approval of procedures

- System procurement challenges (Equipment readiness to support the new technologies).

- Training of staff- both Operational and Technical

THANK YOU FOR YOUR ATTENTION