Second Meeting of the Air Navigation System Implementation Group (ANSIG/2)

Cairo, Egypt, 6-8 December 2016

Sudan

Presented by

AIM Director

Outline

- Brief on **Sudan** National ASBU Implementation Plan
- Status of ASBU Implementation
- Challenges
- Recommendations

Sudan National ASBU Implementation Plan

- We are doing our best to comply with MID strategic Air Navigation Capacity and Efficiency Objective.
- Sudan signed a contract with two French companies for airspace restructure which will be completed by the end of 2017 and it was set to increase capacity and improve efficiency with enhanced safety while minimizing the adverse environmental effects of civil aviation activities.

Status of ASBU Implementation

Status of ASBU Implementation

B0 – APTA: Optimization of Approach Procedures including vertical guidance				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
States' PBN Implementation Plans	Sudan	Enforced	-	
LNAV	All RWYs Ends at International Aerodromes	PI	End of 2017	
LNAV/VNAV	All RWYs Ends at International Aerodromes	PI	End of 2017	

Status of ASBU Implementation

B0-SURF: Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
A-SMGCS Level 1	As per the MID Air Navigation Strategy	NI	2019	
A-SMGCS Level 2	As per the MID Air Navigation Strategy	NI	2019	

Status of ASBU Implementation

B0 – ACDM: Improved Airport Operations through Airport-CDM				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
A-CDM	As per the MID Air Navigation Strategy	NI	2017	

Status of ASBU Implementation

B0 – FICE: Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
AMHS capability	Sudan	Capable		
AMHS Impl. /interconnection	HSSS, OEJD and HECC	PI		Connected with Jeddah only.
Impl. of AIDC/OLDI between adjacent ACCs	ACC(s)	Capable		

Status of ASBU Implementation

B0 – DATM: Service Improvement through Digital Aeronautical Information Management				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
National AIM Roadmap	Sudan	Enforced		
AIXM	Sudan	FI		
eAIP	Sudan	PI	2nd AIP AMDT 1st July 2017	
QMS	Sudan	FI		
WGS-84	ENR AD TMA GUND	FI		
eTOD	Area 1 Terrain Area 1 Obstacle Area 4 Terrain Area 4 Obstacle	PI	Ongoing End of 2017	

Status of ASBU Implementation

B0 – AMET: Meteorological information supporting enhanced operational efficiency and safety				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
SADIS 2G or Secure SADIS FTP	Sudan	FI		
QMS	Sudan	FI		

Status of ASBU Implementation

B0 – FRTO: Improved Operations through Enhanced En-Route Trajectories				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
Flexible use of airspace (FUA)	Sudan	PI		
Flexible routing	Sudan	PI		

Status of ASBU Implementation

B0 – ACAS: ACAS Improvements				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
State Regulation on carriage of ACAS (TCAS v7.1)	Sudan	Enforced	-	Sudan Civil Aviation Regulation Part 6, Sub Part one, Applicable: 1st DEC 2015.

Status of ASBU Implementation

B0 – CDO: Improved Flexibility and Efficiency in Descent Profiles (CDO)				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
PBN STARs	As per the MID Air Navigation Strategy	PI Four ADs	By end of 2017	
International aerodromes/ TMAs with CDO	As per the MID Air Navigation Strategy	PI Four ADs	By end of 2017	

Status of ASBU Implementation

B0 – CCO: Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCO)				
Elements	**Applicability**	**Status**	**Action Plan/Timelines**	**Remarks**
PBN SIDs	As per the MID Air Navigation Strategy	PI 4 ADs HSSS, HSOB, HSPN & HSNN	By end of 2017	Ongoing
International aerodromes/ TMAs with CCO	As per the MID Air Navigation Strategy	PI 2 Ads HSSS & HSPN	By end of 2017	Ongoing

Other ASBU Block 0 Modules (priority 2) Implemented by the State

Module	Module Title	Status		Remarks
		Yes	No	
B0-WAKE	Increased Runway Throughput through Optimized Wake Turbulence Separation	✕		
B0-RSEQ	Improve Traffic flow through Runway Sequencing (AMAN/DMAN)		✕	
B0-ASUR	Initial capability for ground surveillance		✕	
B0-ASEP	Air Traffic Situational Awareness (ATSA)		✕	
B0-OPFL	Improved access to optimum flight levels through climb/descent procedures using ADS-B	✕		
B0-SNET	Increased Effectiveness of Ground-Based Safety Nets	✕		
B0-TBO	Improved Safety and Efficiency through the initial application of Data Link En-Route		✕	

Outlook 2020

(Status of ASBU Block 0 Modules by 2020)

Module	Module Title	Status by 2020				Remarks
		FI	PI	NI	N/A	
B0-APTA	Optimization of Approach Procedures including vertical guidance			✕		
B0-WAKE	Increased Runway Throughput through Optimized Wake Turbulence Separation			✕		
B0-RSEQ	Improve Traffic flow through Runway Sequencing (AMAN/DMAN)			✕		
B0-SURF	Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)			✕		
B0-ACDM	Improved Airport Operations through Airport-CDM			✕		
B0-FICE	Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration			✕		

Outlook 2020

(Status of ASBU Block 0 Modules by 2020)

Module	Module Title	Status by 2020				Remarks
		FI	PI	NI	N/A	
B0-DATM	Service Improvement through Digital Aeronautical Information Management		✕			
B0-AMET	Meteorological information supporting enhanced operational efficiency and safety	✕				
B0-FRTO	Improved Operations through Enhanced En-Route Trajectories			✕		
B0-NOPS	Improved Flow Performance through Planning based on a Network-Wide view			✕		
B0-ASUR	Initial capability for ground surveillance			✕		
B0-ASEP	Air Traffic Situational Awareness (ATSA)			✕		

Outlook 2020

(Status of ASBU Block 0 Modules by 2020)

Module	Module Title	Status by 2020				Remarks
		FI	PI	NI	N/A	
B0-OPFL	Improved access to optimum flight levels through climb/descent procedures using ADS-B			✕		
B0-ACAS	ACAS Improvements			✕		
B0-SNET	Increased Effectiveness of Ground-Based Safety Nets			✕		
B0-CDO	Improved Flexibility and Efficiency in Descent Profiles (CDO)			✕		
B0-TBO	Improved Safety and Efficiency through the initial application of Data Link En-Route			✕		
B0-CCO	Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCO)			✕		

Challenges

- Systems' Optimization during integration phases.

Recommendations

- ICAO MID Regional Office Go- Team is needed to assist in complying with AN Strategy.
- Share of Success Stories.

Thank you