



INTERNATIONAL CIVIL AVIATION ORGANIZATION
Fourth Meeting of the APIRG Infrastructure and Information Sub-group
(IIM/SG/4)

(Online Meeting, 31 August – 3 September 2021)

Agenda Item 5 : Implementation of ASBU modules

IP05 - Implementation status of ASBU Block 0 Modules

(Presented by Senegal)

Table with 1 column and 4 rows. Row 1: SUMMARY. Row 2: This information paper reports on the implementation status of ASBU Block 0 Modules updated to the Sixth Edition of the GANP. Action by the Meeting is at paragraph 3. Row 3: REFERENCE(S): Global Air Navigation Plan (GANP), Sixth Edition; APIRG/21, 22 and 23 Reports. Row 4: ICAO Strategic Objectives: A- Security; B- Capacity and Efficiency of air navigation; E- Environmental protection. KPIs and ASBU B0 Modules concerned : .ALL

1. INTRODUCTION

1.1 The Sixth Edition of the Global Air Navigation Plan (GANP) has several changes from the Fifth Edition. As a result, there is a need to update the national implementation plans for the ASBU.

1.2 The Sixth Edition of the GANP is available online on the ICAO portal at: https://www4.icao.int/ganpportal/.

2. DISCUSSION

2.1 The attachment to this paper shows the implementation status of ASBU Block 0 modules in Senegal, following update to the Sixth Edition of the GANP.

3. ACTION BY THE MEETING

3.1 The meeting is invited to note the information provided in the attachment.

ATTACHMENT

ASBU BLOCK 0 IMPLEMENTATION STATUS – SENEGAL

AREA	THREAD	BLOCK 0 ELEMENTS	TITLE OF THE ELEMENTS	Implementation status
OPERATIONAL	ACDM*	ACDM-B0/1	Airport CDM Information Sharing (ACIS)	
		ACDM-B0/2	Integration with ATM network function	
	APTA*	APTA-B0/1	PBN Approaches (with basic capabilities)	RNAV (GNSS) (Baro-VNAV) are implemented at AIDB Airport, 2018
		APTA-B0/2	PBN SID and STAR procedures (with basic capabilities)	
		APTA-B0/3	SBAS/GBAS CAT I precision approach procedures	
		APTA-B0/4	CDO (Basic)	
		APTA-B0/5	CCO (Basic)	
		APTA-B0/6	PBN Helicopter Point in Space (PinS) Operations	
		APTA-B0/7	Performance based aerodrome operating minima – Advanced aircraft	
		APTA-B0/8	Performance based aerodrome operating minima – Basic aircraft	

AREA	THREAD	BLOCK 0 ELEMENTS	TITLE OF THE ELEMENTS	Implementation status
	FRTO*	FRTO-B0/1	Direct routing (DCT)	Implementation elements include : <ul style="list-style-type: none"> - SSR and ADS –B (ground and satellite) allowing direct routing; - Preferential trajectories in the Dakar Oceanic FIR through the implementation of AORRA; - Implementation of flexible routes in the continental parts of the Dakar FIR; - ASECNA strategic plan for the implementation of the PBN in coordination with the National PBN Plan of Senegal; - FRA implementation planned for 2020 postponed to 2023 because of Covid-19 pandemic.
		FRTO-B0/2	Airspace planning and Flexible Use of Airspace (FUA)	Implementation of civil-military coordination to facilitate use of FUA
		FRTO-B0/3	Pre-validated and coordinated ATS routes to support flight and flow	
		FRTO-B0/4	Basic conflict detection and conformance monitoring	
	NOPS*	NOPS-B0/1	Initial integration of collaborative airspace management with air traffic flow management	Study of ATFM implementation in progress
		NOPS-B0/2	Collaborative Network Flight Updates	
		NOPS-B0/3	Network Operation Planning basic features	
		NOPS-B0/4	Initial Airport/ATFM slots and A-CDM Network Interface	
		NOPS-B0/5	Dynamic ATFM slot allocation	

AREA	THREAD	BLOCK 0 ELEMENTS	TITLE OF THE ELEMENTS	Implementation status
	OPFL*	OPFL-B0/1	In Trail Procedure (ITP)	
	RSEQ*	RSEQ-B0/1	Arrival Management	
		RSEQ-B0/2	Departure Management	
		RSEQ-B0/3	Point merge	
	SNET*	SNET-B0/1	Short Term Conflict Alert (STCA)	STCA implemented. Dakar ATC Centre is equipped with the automated ATM system TOPSKY having the following functionalities ADS-B /CPDLC, FDPS, FPASD, RDP, SDP. 2017
		SNET-B0/2	Minimum Safe Altitude Warning (MSAW)	MSAW alerts are implemented. 2017
		SNET-B0/3	Area Proximity Warning (APW)	APW alerts are implemented. 2017
		SNET-B0/4	Approach Path Monitoring (APM)	
	SURF*	SURF-B0/1	Basic ATCO tools to manage traffic during ground operations	
		SURF-B0/2	Comprehensive situational awareness of surface operations	
		SURF-B0/3	Initial ATCO alerting service for surface operations	
	TBO*	TBO-B0/1	Introduction of time-based management within a flow centric approach	

AREA	THREAD	BLOCK 0 ELEMENTS	TITLE OF THE ELEMENTS	Implementation status
INFORMATION	AMET*	AMET-B0/1	Meteorological observations products	<p>Implemented elements include:</p> <ul style="list-style-type: none"> - QMS for MET implemented, ISO 9001 V 2015 certified. - AWOS system; - Local bulletins (MET REPORT / SPECIAL); - Aerodrome bulletins (METAR / SPECI); - Information about lightning; - Meteorological satellite imagery - Vertical wind and temperature profiles; - Aircraft Weather Report (i.e. ADS-B, AIREP - Reception of WAFCS products in all formats. - Improvement of the monitoring en route through the strengthening of the capacities of the MWOs for the detection and issuance of planned SIGMET, of all the dangerous phenomena not taken into account by the regional centers (VAAC and TCAC). - Wind shear detection system operational at Dakar AIBD/Diass airport. - Storm warning and warning systems in the Dakar continental and Dakar Oceanic FIRs <p>2015-2019</p>

AREA	THREAD	BLOCK 0 ELEMENTS	TITLE OF THE ELEMENTS	Implementation status
		AMET-B0/2	Meteorological forecast and warning products	Implemented elements include : <ul style="list-style-type: none"> - World Area Forecast System (WAFS) gridded products - Significant Weather (SIGWX) - Aerodrome Forecast (TAF) - Trend Forecast (TREND) - Take-off Forecast - Volcanic Ash Advisory (VAA) - SIGMET - Aerodrome Warning - Wind Shear Warning
		AMET-B0/3	Climatological and historical meteorological products	Implemented elements include : <ul style="list-style-type: none"> - Aerodrome climatological tables; - Aerodrome climatological summaries.
		AMET-B0/4	Dissemination of meteorological products	Implemented elements include : <ul style="list-style-type: none"> - TAC - Gridded - Graphical (i.e., PNG format) - BUFR code - IWXXM (in XML/GML)
	FICE*	FICE-B0/1	Automatic basic inter facility data exchange (AIDC)	ATM systems at AIBD airport have AIDC functionality. AIDC implementation trials are conducted between Dakar and Abidjan. Regional AIDC Implementation Project between ASECNA and Roberts FIR. 2018-2022
TECHNOLOGIE	ASUR*	ASUR-B0/1	Automatic Dependent Surveillance – Broadcast (ADS-B)	Airspace covered 100% by ADS-B since 2020. ADS-B surveillance implemented at Dakar ATC Centre

AREA	THREAD	BLOCK 0 ELEMENTS	TITLE OF THE ELEMENTS	Implementation status
		ASUR-B0/2	Multilateration cooperative surveillance systems (MLAT)	
		ASUR-B0/3	Cooperative Surveillance Radar Downlink of Aircraft Parameters (SSR-DAPS)	
	COMI	COMI-B0/1	Aircraft Communication Addressing and Reporting System (ACARS)	
		COMI-B0/2	Aeronautical Telecommunication Network/Open System Interconnection (ATN/OSI)	The AFI Region has chosen (Conc. APIRG 16/14) to implement the ATN/IPS element that is part of Block 1
		COMI-B0/3	VHF Data Link(VDL) Mode 0/A	
		COMI-B0/4	VHF Data Link(VDL) Mode 2 Basic	
		COMI-B0/5	Satellite communications (SATCOM) Class C Data	ADS-C/CPDLC implemented
		COMI-B0/6	High Frequency Data Link (HFDL)	
		COMI-B0/7	ATS Message Handling System (AMHS)	AMHS implemented. AIDC implementation tests between DKR et ABJ, 2018
	COMS	COMS-B0/1	CPDLC (FANS 1/A & ATN B1) for domestic and procedural airspace	
		COMS-B0/2	ADS-C (FANS 1/A) for procedural airspace	
	NAVS	NAVS-B0/1	Ground Based Augmentation Systems (GBAS)	
		NAVS-B0/2	Satellite Based Augmentation Systems	

AREA	THREAD	BLOCK 0 ELEMENTS	TITLE OF THE ELEMENTS	Implementation status
			(SBAS)	
		NAVS-B0/3	Aircraft Based Augmentation Systems (ABAS)	
		NAVS-B0/4	Navigation Minimal Operating Networks (Nav. MON)	

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