



APIRG Infrastructure and Information Management Sub-group

IIM COM Project 8 – Development of Policies, Systems to Protect Aeronautical Spectrum

STATUS REPORT

1. Project Objectives

- Develop a resilient framework for coordination of Aeronautical frequencies in the region.
- Establish a forum and logical infrastructure for coordination of aeronautical frequencies with State regulators sub-region and regional frequency Management bodies.
- Ensure states are conversant with developed ICAO tools on frequency management.
- Establish a forum for coordination and support of ICAO positions for forthcoming WRC.
- Carryout studies on effects on aeronautical frequency bands from adjacent bands.

2. Project Scope

The project will be focused on maintaining, identifying, and protecting of all Aeronautical frequency bands and any other frequencies key to the safe and secure operations of all aeronautical telecommunication and avionics facilities and systems in line with ICAO's long-term vision to ensure continuity and harmonization of international civil aviation.

3. Baseline (2022) – Status of the ASBU implementation

- 3.1. The project assisted **all 49 AFI** States accredited to the two regional offices of ESAF and WACAF with the implementation of the ASBU elements. The status of the implementation of the ASBU elements by these States in 2022 is provided in the table below.

States	Implementation status of ASBU elements									Comments
	ACAS B1/1	COM1 B0/1	COM1 -B0/3	COM1- B0/4	COM1 -B0/5	COM1 -B0/6	COM1 -B0/7	COM1- B1/2	COM1 -B1/3	
Angola	0%	100%	0%	0%	0%	0%	50%	0%	0%	
Botswana	0%	100%	0%	0%	0%	0%	50%	0%	0%	
Burundi	0%	100%	0%	0%	0%	0%	0%	0%	0%	
Comoros	0%	100%	0%	0%	0%	0%	50%	0%	0%	
Djibouti	0%	100%	0%	0%	0%	0%	0%	0%	0%	
Eritrea	0%	100%	0%	0%	0%	0%	0%	0%	0%	

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Eswatini	0%	100%	0%	0%	0%	0%	0%	0%	0%	
Ethiopia	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Kenya	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Lesotho	0%	100%	0%	0%	0%	0%	0%	0%	0%	
Madagascar	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Malawi	0%	100%	0%	0%	0%	0%	0%	0%	0%	
Mauritius	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Mozambique	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Namibia	0%	100%	0%	0%	0%	0%	0%	0%	0%	
Rwanda	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Seychelles	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Somalia	0%	100%	0%	0%	0%	50%	0%	0%	0%	
South Africa	0%	100%	0%	0%	0%	50%	0%	0%	0%	
South Sudan	0%	100%	0%	0%	0%	0%	0%	0%	0%	
Uganda	0%	100%	0%	0%	0%	50%	0%	0%	0%	
United Republic of Tanzania	0%	100%	0%	0%	0%	-	0%	0%	0%	
Zambia	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Zimbabwe	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Benin	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Burkina Faso	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Cameroon	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Cape Verde	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Central African Republic	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Chad	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Congo	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Cot d'Ivoire	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Democratic Republic of Congo	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Equatorial Guinea	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Gabon	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Gambia	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Ghana	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Guinea Bissau	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Guinea	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Liberia	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Mali	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Mauritania	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Niger	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Nigeria	0%	100%	0%	0%	0%	50%	0%	0%	0%	

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Sao Tome & Principe	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Senegal	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Sierra Leone	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Togo	0%	100%	0%	0%	0%	50%	0%	0%	0%	
Saint Helena & Asuncion islands	0%	100%	0%	0%	0%	50%	0%	0%	0%	

ASBU elements States	Implementation status of ASBU elements									Comments
	COMS B0/2	COMS B1/1	COMS -B1/2	COMS-B1/3	NAVS -GNSS	NAVS -B0/2	NAVS -B0/3	NAVS -B0/4	FICE-B0/1	
Angola	100%	100%	50%	0%	100%	0%	50%	0%	0%	
Botswana	0%	0%	50%	0%	100%	0%	50%	0%	0%	
Burundi	0%	0%	50%	0%	100%	0%	50%	0%	0%	
Comoros	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Djibouti	0%	0%	50%	0%	100%	0%	50%	0%	0%	
Eritrea	0%	0%	50%	0%	100%	0%	50%	0%	0%	
Eswatini	0%	0%	50%	0%	100%	0%	50%	0%	0%	
Ethiopia	0%	0%	50%	0%	100%	0%	50%	0%	0%	
Kenya	100%	0%	50%	0%	100%	0%	50%	0%	0%	
Lesotho	0%	0%	50%	0%	100%	0%	50%	0%	0%	
Madagascar	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Malawi	0%	0%	50%	0%	100%	0%	50%	0%	0%	
Mauritius	100%	100%	50%	0%	100%	0%	50%	0%	100%	
Mozambique	0%	0%	50%	0%	100%	0%	50%	0%	0%	
Namibia	0%	0%	50%	0%	100%	0%	50%	0%	0%	
Rwanda	0%	0%	50%	0%	100%	0%	50%	0%	0%	
Seychelles	0%	0%	50%	0%	100%	0%	50%	0%	0%	
Somalia	100%	100%	50%	0%	100%	0%	50%	0%	0%	
South Africa	100%	100%	50%	0%	100%	0%	50%	0%	0%	
South Sudan	0%	0%	50%	0%	100%	0%	50%	0%	100%	
Uganda	0%	0%	50%	0%	100%	0%	50%	0%	0%	
United Republic of Tanzania	0%	0%	50%	0%	100%	0%	50%	0%	0%	
Zambia	0%	0%	50%	0%	100%	0%	50%	0%	0%	
Zimbabwe	0%	0%	50%	0%	100%	0%	50%	0%	0%	
Benin	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Burkina Faso	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Cameroon	100%	100%	50%	0%	100%	0%	50%	0%	50%	

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Cape Verde	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Central African Republic	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Chad	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Congo	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Cot d'ivoire	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Democratic Republic of Congo	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Equatorial Guinea	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Gabon	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Gambia	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Ghana	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Guinea Bissau	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Guinea	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Liberia	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Mali	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Mauritania	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Niger	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Nigeria	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Sao Tome & Principe	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Senegal	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Sierra Leone	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Togo	100%	100%	50%	0%	100%	0%	50%	0%	50%	
Saint Helena & Asuncion islands	100%	100%	50%	0%	100%	0%	50%	0%	50%	

States	Implementation status of ASBU elements									Comments
	ASUR B0/1	ASUR B0/2	ASUR -B0/3	ASUR-B1/1	ASUR -SSR Mode A/C	ASUR-SSR Mode S	NAVS -VOR	NAVS -DME	NAVS -ILS	
Angola	0%	0%	0%	0%	100%	50%	100%	100%	100%	
Botswana	0%	0%	0%	0%	0%	100%	100%	100%	100%	
Burundi	0%	0%	0%	0%	0%	0%	100%	100%	100%	
Comoros	100%	0%	0%	50%	100%	0%	100%	100%	100%	
Djibouti	0%	0%	0%	0%	0%	0%	100%	100%	100%	
Eritrea	0%	0%	0%	0%	0%	0%	100%	100%	100%	
Eswatini	0%	0%	0%	0%	0%	0%	100%	100%	100%	

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Ethiopia	100%	100%	0%	50%	100%	50%	100%	100%	100%	
Kenya	0%	0%	0%	0%	100%	100%	100%	100%	100%	
Lesotho	0%	0%	0%	0%	0%	0%	100%	100%	100%	
Madagascar	100%	0%	0%	50%	100%	100%	100%	100%	100%	
Malawi	0%	0%	0%	0%	0%	0%	100%	100%	100%	
Mauritius	0%	0%	0%	0%	0%	0%	100%	100%	100%	
Mozambique	0%	0%	0%	0%	0%	0%	100%	100%	100%	
Namibia	0%	0%	0%	0%	0%	0%	100%	100%	100%	
Rwanda	0%	0%	0%	0%	0%	0%	100%	100%	100%	
Seychelles	50%	0%	0%	50%	0%	0%	100%	100%	100%	
Somalia	0%	0%	-	0%	0%	0%	100%	100%	100%	
South Africa	50%	0%	-	0%	100%	100%	100%	100%	100%	
South Sudan	0%	0%	-	0%	0%	0%	100%	100%	100%	
Uganda	0%	0%	-	0%	0%	100%	100%	100%	100%	
United Republic of Tanzania	0%	0%	-	0%	0%	100%	100%	100%	100%	
Zambia	0%	0%	-	0%	0%	100%	100%	100%	100%	
Zimbabwe	0%	0%	-	0%	0%	0%	100%	100%	100%	
Benin	100%	0%	0%	50%	100%	100%	100%	100%	100%	
Burkina Faso	100%	0%	0%	50%	100%	100%	100%	100%	100%	
Cameroon	100%	0%	0%	50%	100%	100%	100%	100%	100%	
Cape Verde	0%	0%	0%	0%	100%	100%	100%	100%	100%	
Central African Republic	100%	0%	0%	50%	100%	100%	100%	100%	100%	
Chad	100%	0%	0%	50%	100%	100%	100%	100%	100%	
Congo	100%	0%	0%	50%	100%	100%	100%	100%	100%	
Cot d'ivoire	100%	0%	0%	50%	100%	100%	100%	100%	100%	
Democratic Republic of Congo	100%	0%	0%	0%	0%	0%	100%	100%	100%	
Equatorial Guinea	100%	0%	0%	50%	100%	100%	100%	100%	100%	
Gabon	100%	0%	0%	50%	100%	100%	100%	100%	100%	
Gambia	0%	0%	0%	0%	-	-	100%	100%	100%	
Ghana	100%	0%	0%	50%	100%	100%	100%	100%	100%	
Guinea Bissau	100%	0%	0%	50%	100%	100%	100%	100%	100%	
Guinea	100%	0%	0%	0%	-	-	100%	100%	100%	
Liberia	0%	0%	0%	0%	0%	0%	100%	100%	100%	
Mali	100%	0%	0%	50%	100%	100%	100%	100%	100%	
Mauritania	100%	0%	0%	50%	100%	100%	100%	100%	100%	
Niger	100%	0%	0%	50%	100%	100%	100%	100%	100%	
Nigeria	100%	0%	0%	50%	100%	100%	100%	100%	100%	

Sao Tome & Principe	100%	0%	0%	0%	0%	0%	100%	100%	100%	
Senegal	100%	0%	0%	50%	100%	100%	100%	100%	100%	
Sierra Leone	0%	100%	0%	0%	-	-	100%	100%	100%	
Togo	100%	0%	0%	50%	100%	100%	100%	100%	100%	
Saint Helena & Asuncion islands	100%	0%	0%	50%	100%	100%	100%	100%	100%	

Note

- NAVS -B0/1 Ground Based Augmentation Systems (GBAS) has non implementation (0%) status across all the 49 AFI States

4. Status of the implementation of the 2023 Action Plan

Ref. ASBU element	Deliverable	Task/activity	Beneficiary States	Status	Comments
	Revision of Project documentation	To Include 5G issues affecting radio altimeter	All	Partially Done	Meeting of project scheduled but deferred
All the elements in paragraph 3.1 above	Development of MOU template between CAA and frequency regulators	Review of collaboration currently at hand and drafting of template	All	Not done	Awaiting re-scheduling of onsite meeting
All the elements in paragraph 3.1 above	Conducting of workshop on ICAO 9718 and ICO frequency finder tool	Hosting a workshop/meeting on Frequency finder tool	All	Done	Carried out in 2022 by ICAO head office in collaboration with ESAF and WACAF;
All the elements in paragraph 3.1 above	Studies and engagement carried out on requirement for Aeronautical frequency bands and their guard bands for safe utilization	Position on effects of 5G operations in the adjacent bands of aeronautical bands used for facilities such as radio altimeters.	All	Tentative meeting dates set for June/ July 2023	Regional officer to confirm dates of meeting/ workshop
All the elements in paragraph 3.1 above		Workshop on ICAO Position to WRC-23 for AFI States	All	Done 2022/ and 21 July 2023	Ok

All the elements in paragraph 3.1 above		Representation of ICAO position to the 4 th ATU meeting to WRC-23	All	Tentatively set for August 2023	CNS Regional officer informed of invitation by ATU for the 4 th APM set for 7 – 11 August 2023 in Cameroon
All the elements in paragraph 3.1 above		Present Justification on position of ICAO on WRC-23 Agenda items affecting aviation to WRC-23 scheduled for November 2023	All	Tentatively set for 20 November to 15 December 2023	Dubai UAE
All the elements in paragraph 3.1 above		Review of actual decision from WRC-23 Visa vie AFI utilization of aeronautical frequencies	All	Tentatively planned for February 2024	To be determined in Project meeting

5. ASBU Elements implementation status

5.1. ESAF States

Ref. ASBU element	Number of ESAF States assisted	Number of States reporting “Completed”	Number of States reporting “Partially completed”	Number of States reporting “Planned”	Number of States reporting “Not yet started”	Comments
COM1 -B0/1	TBD	24				
COM1 -B0/3	TBD				24	
COM1 -B0/4	TBD				24	
COM1 -B0/5	TBD				24	
COM1 -B0/6	TBD		12		12	
COM1 -B0/7	TBD		3		21	

COM1 -B1/2	TBD				24	
COM1 -B1/3	TBD				24	
COMS -B0/2	TBD	7			17	
COMS -B1/1	TBD	6			18	
COMS -B1/2	TBD		24			
COMS -B1/3	TBD				24	
FICE -B0/1	TBD	2	2		20	
NAVS-B0/1	TBD				24	
NAVS-B0/2	TBD				24	
NAVS-B0/3	TBD		24			
NAVS-B0/4	TBD				24	
NAVS-VOR	TBD	24				
NAVS-DME	TBD	24				
NAVS-ILS	TBD	24				
NAVS-GNSS	TBD	24				
ASUR-B0/1	TBD	3	2		4	
ASUR-B0/2	TBD	1			23	
ASUR-B0/3	TBD				17	
ASUR-B1/1	TBD		4		20	
ASUR-SSR Mode A/C	TBD	6			18	
ASUR-SSR Mode S	TBD	7	2		15	
ACAS-B1/1	TBD				24	

5.2. WACAF States

Ref. ASBU element	Number of WACAF States assisted	Number of States reporting “Completed”	Number of States reporting “Partially completed”	Number of States reporting “Planned”	Number of States reporting “Not yet started”	Comments
COM1 -B0/1	TBD	25				
COM1 -B0/3	TBD				25	
COM1 -B0/4	TBD				25	
COM1 -B0/5	TBD				25	
COM1 -B0/6	TBD		25			
COM1 -B0/7	TBD				25	
COM1 -B1/2	TBD				25	
COM1 -B1/3	TBD				25	
COMS -B0/2	TBD	25				
COMS -B1/1	TBD	25				
COMS -B1/2	TBD		25			
COMS -B1/3	TBD				25	
FICE -B0/1	TBD		25			
NAVS-B0/1	TBD				25	
NAVS-B0/2	TBD				25	
NAVS-B0/3	TBD		25			
NAVS-B0/4	TBD				25	
NAVS-VOR	TBD	25				
NAVS-DME	TBD	25				

NAVS-ILS	TBD	25				
NAVS-GNSS	TBD	25				
ASUR-B0/1	TBD	21				
ASUR-B0/2	TBD	1			24	
ASUR-B0/3	TBD				25	
ASUR-B1/1	TBD		18		7	
ASUR-SSR Mode A/C	TBD	21	4			
ASUR-SSR Mode S	TBD	19	5		6	
ACAS-B1/1	TBD				25	

6. Conclusion

The meeting is requested

- a) Note the project Action plan for the SPEC project for the year 2023
- b) Note the overarching effect of the project on all the CNS ASBU elements
- c) Encourage project members including the newly nominated members to participate in the project meetings.
- d) Encourage states who participate in the forthcoming WRC-23 activities with the aim of supporting the ICAO position