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Update for the CAR/SAM Regions Upper and Lower Level Limit

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ANI/WG/PBN/TF/02, 10 to 12 August 2021

Objective

- Inform of the changes in the CAR/SAM eANP Vol. I regarding the Plane of division between the lower and upper airspace
- Follow up previous work/analysis on the CAR/SAM Regions Upper and Lower Level Limits

CAR/SAM eANP Vol. II

TABLE ATM II-CARSAM-1- CAR/SAM REGIONS ATS ROUTES

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TABLE ATM II-CARSAM-1- CAR/SAM REGIONS ATS ROUTES

EXPLANATION OF THE TABLE

Column	
1	Designator of ATS route. Left-hand side of page lists lower ATS routes, right-hand side of page lists upper ATS routes.
2	Significant points defining the ATS routes. Each significant point is identified by a navigation facility name or a five-letter name-code. The significant points of each ATS route are those which identify route ends, FIR boundaries or an equivalent point, are 300 NM or more from another significant point, indicate a heading change of 30° or more, and other points considered necessary to identify the route. Locations shown in parentheses indicate significant points outside the CAR/SAM regions.

Note 1 – Indicates route or route-segment not implemented.

Note 2 – Indicates route or route-segment published by the State with a designator that does not comply with Annex 11

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ATS routes — Lower airspace Routes ATS — Espace aérien inférieur Rutas ATS — Espacio aéreo inferior	ATS routes — Upper airspace Routes ATS — Espace aérien supérieur Rutas ATS — Espacio aéreo superior
GTOMO	OTOMO
XORAR	XORAR
CANCUN	CANCUN
SIGMA	SIGMA
L216	**UL216**
LERED 20° 23'54.8" N 070° 27'03.5" W	NELOX 29 58.78S 051 09.91W
GTKVOR 21° 26'26.38" N 071° 8'03.6" W	GEBUN 2634465 0534646W
	FOZ 2535305 0543013W
	ARVOP 2216015 0563057W
	SIDAK 193821S 0581228W
	UGUPA 1537345 0602330W
	ARMUK 1328505 0613330W
	UBSM 12 56.505 061 50.62W
	PORTOVELHO 08 42.845 063 54.21W
	MEDLE 03 33.075 065 46.19W
	SAO GABRIEL 00 09.045 066 59.11W
	ZORRO 01 51.80N 067 12.11W
	PUERTO AYACUCHO 053658N 0673637W
	ALTOS 102339N 0670231W
	POKAK 16°00'00"N 069°34'00"W
	DCYVOR 19° 16' 14 "N 069°44'26.65"W
	LERED 20° 23'54.8" N 070° 27'03.5" W
L221	**UL221**
SATOE 17°40'00"N 17°40'00"N	VESKA 16° 00'00" N 070°45' 00" W
TAYOG 17°54'15.6"N 068°51'15"W	DUMBI 16° 22'34.71" N 070° 07'45.53 "W
JOSHE 18°14'32.4"N 068°30'03.6"W	ALTEL 16° 55'04.33 " N 069° 14'56.19" W
	GABAD 17° 12'44.10 "N 068°45'38.13"W
	SATOE 17°40'00"N 068°00'00"W

CAR/SAM ANP, Volume II Part IV (ATM) April 2020

ANI/WG/PBN/TF/OPT Meeting

Online , 20 – 23 October 2020

ICAO International Civil Aviation Organization
North American, Central American and Caribbean Office

WORKING PAPER

ANI/WG/PBN/TF/OPT — WP/03
15/10/20

Optimization of the CAR Region Airspace Meeting – NAM/CAR Air Navigation Implementation Working Group (ANI/WG) Performance-Based Navigation (PBN) Airspace Concept Task Force (ANI/WG/PBN/TF/OPT)

Online , 20 – 23 October 2020

Agenda Item 4: **Harmonization of the CAR Region Upper and Lower Level Limits**

CAR REGION UPPER AND LOWER AIRSPACE LIMITS

(Presented by the Secretariat)

EXECUTIVE SUMMARY	
This Working Paper presents the current difference in the vertical limits of upper and lower airspaces for the Flight Information Regions (FIRs) of the CAR Region and proposes further analysis by the ANI/WG PBN Task Force	
Action:	Suggested actions are included in Section 5.
Strategic Objectives:	• Safety • Air Navigation Capacity and Efficiency
References:	• ICAO Annex 11- Air Traffic Services • CAR/SAM Digital – Air Navigation Plan (e-ANP) Vol. II

2. Background

2.1 Annex 11 – *Air Traffic Services* establishes the requirements for ATS routes identification. The ATS route designator shall consist of a basic designator supplemented, if necessary, by one prefix to indicate:

a. a low-level route established for use primarily by helicopters;
b. that the route or portion thereof is established in the upper airspace;
c. a route established exclusively for use by supersonic aircraft during acceleration, deceleration and while in supersonic flight.

2.2 The table of ATS routes classification of the CAR/SAM eANP separates routes in the upper and lower airspace, using the Annex 11 criteria.

2.3 While the prefix U "upper" is normally used in communications and aeronautical information processes in general, there´s no clear definition of what the upper airspace refers.

CAR REGION FIRs	UPPER AIRSPACE LIMITS		LOWER AIRSPACE LIMITS	
	lower limit	upper limit	lower limit	upper limit
SAN JUAN	18,000 FT (MSL)	600	5,500 FT (MSL)	17,999 (MSL)
PIARCO	245	UNL	MSL	245
CURACAO	195	UNL	2500	195
NASSAU	N/A	N/A	1,500 MSL	12,000 MSL in Nassau TMA; 6,000 MSL everywhere else
CENTRAL AMERICAN	*195*	*UNL*	*GND*	*195*
NEW YORK OCEANIC WEST	18,000 FT (MSL)	600	5,500 MSL	*17,999 MSL*
KINGSTON	*245*	*UNL*	*GND*	*245*
HABANA	*245*	*UNL*	*MEA*	*245*
SANTO DOMINGO	*195*	*UNL*	*GND*	*195*
PORT-AU-PRINCE	*245*	*UNL*	*GND*	*245*
MEXICO	195	UNL	GND	195

CAR REGION FIRs	UPPER AIRSPACE LIMITS		LOWER AIRSPACE LIMITS	
	lower limit	upper limit	lower limit	upper limit
MIAMI OCEANIC	18,000 FT (MSL)	600	*12,001 MSL over Nassau TMA; 6,001 MSL everywhere else over Nassau FIR; 2,700 MSL outside of Nassau FIR*	*17,999 MSL*
HOUSTON	280	600	1,200 (MSL)	27,999 MSL
HOUSTON OCEANIC	280	600	1,200 (MSL)	27,999 MSL
MIAMI	18,000 FT (MSL)	600	2,700 (MSL)	17,999 MSL

DECISION **ANI/WG/PBN/TF/OPT/04**	**ANALYSIS OF THE CAR REGION UPPER AND LOWER AIRSPACE LIMITS**	
What: That, taking into consideration the current difference in the vertical limits of upper and lower airspaces for the Flight Information Regions (FIRs) of the CAR Region and the need to gather additional information of possible operational repercussions of this situation the ANI/WG PBN Task Force: a) conduct an analysis of the possible operational impact of the current difference in the vertical limits of upper and lower airspaces for the Flight Information Regions (FIRs) of the CAR Region; this analysis shall be limited and take into consideration operational related aspects only; and b) present the results of this analysis to the next ANI/WG PBN Task Force Meeting.		**Expected impact:** ☐ Political/Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Operational/Technical
Why: To identify possible operational impact of the difference in the vertical limits of upper and lower airspaces for the Flight Information Regions (FIRs) of the CAR Region		
When:	Before the next ANI/WG PBN Task Force Meeting	**Status:** ☒ Valid / ☐ Superseded / ☐ Completed
Who:	☒ States ☒ ICAO ☒ Other:	ANI/WG PBN Task Force

Doc 8733

Caribbean and South American Regions
Régions Caraïbes et Amérique du Sud
Regiones del Caribe y Sudamérica

Air Navigation Plan
Plan de navigation aérienne
Plan de navegación aérea

Volume I, Basic ANP
Volume I, ANP de base
Volumen I, ANP básico

Not to be used for operational purposes
Ne pas utiliser pour l'exploitation
No debe utilizarse para fines de operaciones

First edition – 2000
Première édition – 2000
Primera edición – 2000

Plane of division between the lower and upper airspace
[CAR/SAM/3 Rec. 5/13]

24. Where a division of the airspace into an upper and lower position is required, States should consider the establishment of a uniform plane of division at FL 245. States that are unable to implement FL 245 as the plane of division between lower and upper airspaces should, as far as possible, select a level already used by adjacent States.

CAR REGION FIRs	UPPER AIRSPACE LIMITS		LOWER AIRSPACE LIMITS	
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PORT-AU-PRINCE	*245*	*UNL*	*GND*	*245*
MEXICO	195	UNL	GND	195

Project to update the CAR/SAM eANP Vol. I

- Review and update Vol. I reference and track previous changes
- Update/add the FIRs and SRRs limits with coordinates
- Include the Plane of division between the lower and upper airspace paragraph from previous versions

Suggested Actions

- Be informed/Raise awareness on the changes to the CAR/SAM eANP Vol. I
- Follow up on the DECISION ANI/WG/PBN/TF/OPT/04
  - ANALYSIS OF THE CAR REGION UPPER AND LOWER AIRSPACE LIMITS
- Promote collaboration for future harmonization

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THANK YOU!