



**Twentieth Meeting of the CAR/SAM Regional Planning and Implementation Group
 (GREPECAS/20)**
 Salvador, Brazil, 16 – 18 November 2022

Agenda Item 2: Global and Regional Developments
 2.3 Programmes and Projects Progress Report

AIRSPACE OPTIMIZATION TASK FORCE PROGRESS REPORT (AO/TF)

(Presented by the Airspace Optimization Task Force)

EXECUTIVE SUMMARY	
This working paper presents the progress achieved by the Airspace Optimization Task Force (AO/TF).	
Action:	Suggested actions are presented in Section 3.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"> • Air Navigation Capacity and Efficiency • Economic Development of Air Transport • Environmental Protection
<i>References:</i>	<ul style="list-style-type: none"> • Fifth NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/5) Report, Mexico City, Mexico, 27 – 31 May 2019. • Second NAM/CAR Air Navigation Implementation Working Group (ANI/WG) Performance-Based Navigation (PBN) Implementation Task Force Meeting ANI/WG/PBN/TF/02, Online, 10 - 12 August 2021. • First Meeting of the Airspace Optimization Task Force of the North American, Central American and Caribbean Working Group (NACC/WG) • 5th Meeting of the CIIFRA Team Hybrid, Miami, United States and on-line, 2 to 4 August 2022

1. Introduction

1.1 As the global pandemic began to wind down, the Performance Based Navigation Taskforce met and considered a name change to reflect the priority of optimizing the region’s airspace. In August of 2021, the task force formally changed its name to Airspace Optimization Task force. In early 2022, the Task force absorbed the Airspace Optimization Team in order to prevent duplicate work and effort in a common goal.

1.2 During severe weather, and throughout the pandemic, the CANSO Air Traffic Flow Management Data Exchange Network for the Americas (CADENA) was asked by airlines carrying vital pandemic relief items such as vaccines for more efficient routes. CADENA developed a process, **PASA** (Planned Airways System Alternative) end-to-end (**E2E**) routes, in which any airline could submit a request to CADENA and CADENA would then coordinate this request through the States and Air Navigation Service Providers (ANSPs) for approval. Examples of the benefits provided by the above mentioned procedures can be found at the [ICAO Climate Change: Climate Risk Assessment, Adaptation and Resilience – Menu of Adaptation Options 2022 – Strengthening Climate Change Resilience: CADENA Example pg 13](#).

1.3 The resumption of air traffic offered an opportunity in the optimization of older routes (legacy routes). The implementation of these optimized routes on a trial basis as the traffic was rebounding worked well. The Airspace Optimization Team had been working collaboratively with the International Air Transport Association (IATA) as well as the CANSO ATFM Data Exchange Network (CADENA) while working with the States to achieve optimization. This collaborative group is known as the CIIFRA (CANSO IATA ICAO Free Route Airspace) Team and their work has expanded the E2E route optimization process to offer permanent solutions. .

1.4 The CIIFRA project aims to support the region in reaching a Free Route Airspace (FRA) system. Nonetheless, before reaching FRA, we must understand what is needed, implement the required equipment, and develop the appropriate processes. Therefore, we follow a step-by-step approach (E2E, UPR) that will allow the aviation community to comprehend, train, learn, prepare and transition to FRA. We also developed the airspace capability table to determine the gap between what is in place today and what is needed to reach FRA. The table will support us in targeting the needs and achieving the correct approach.

2. AO/TF Progress and Results

2.1 CIIFRA chose a “two-pronged” approach to complete its mission.

2.1.1 **Track A**—In this track, the concept is to realize quick, easy and achievable gains in efficiency. Utilizing the PASA E2E process, airlines submit potential routes to CIIFRA offering information on the advantage of the proposed route. That route is then coordinated with the affected States and any State may offer an alternate route. The “ask” is that the States do the best they can in helping to optimize the requested route. Once a route is approved, a 30 day trial is scheduled. Upon completion and success of the 30 day trial, it is extended to 90 days and then to 1 year. There are 6 routes currently in the 1 year status and several that are in the earlier stages. CIIFRA is currently working on getting the 6 completed routes published in the States’ Aeronautical Information Circulars (AICs) and enable carriers to file the routes and realize more efficiencies. This process will continue along side of Track B work.

2.1.2 **Track B**—Once we saw the success of the PASA E2E route optimization trials, we began the process of moving towards Free Route Airspace. It was decided to use a similar strategy to track A. Delta Airlines volunteered and the Atlanta-Lima-Atlanta city pair was chosen. The initial trial was a one day test that was pre-coordinated. This was followed by a one-day test that was not pre-coordinated. Then a three day trial followed and, most recently, a seven-day trial was conducted. The advantage of these routes is that the airline is able to take full advantage of the winds. These initial trials are truly more of a User Preferred Route (UPR) than true Free route Airspace (FRA) but the concept is similar. We see this as a logical step toward the ultimate goal of FRA

2.2 Once the user preferred routes between the ATL-LIM-ATL city pair are shown to be operationally successful, we will work on other routes in this UPR-FRA concept. After several routes are in place, we will start the process of true FRA implementation. This will be a slow and deliberate process utilizing the tools of time, location and altitude. The initial FRA trial will most likely be a small section of airspace during established timeframe at or above a selected altitude. Something along these lines *XXX airspace will be FRA between the hours of 0500Z and 1000Z on xx date at or above FL390*. Once this test has been proven successful (knowing that there may be issues to resolve), we will follow the pattern in previous tests and go for a longer period, then longer timeframe and lower altitude.

Two Pronged Attack

- End to End route Optimization
- User Preferred Route/Free Route Airspace



2.3 **Track A results.** There are currently 13 routes that have been approved. With the help of the participating airlines, we have collected very good metrics on 9 of these routes.

2.3.1 Estimated 1-year savings of 9 routes that we have data for.

Savings	
Flight Min	15,232
Fuel (lb)	3,182,472
CO2 (kg)	4,561,606
Cost (\$)	2,529,417

2.3.2 To highlight the success of the CIIFRA Team, projected yearly savings in flight minutes on the nine flights is 15,232 minutes. That is the equivalent of 39 flights saved between Atlanta and Lima based on an average flying time between ATL and LIM of 6.5 hours! The 4,561,606 CO2 emissions saved is the equivalent of greenhouse emissions of 11,322,844 miles driven by an average passenger car. There are additional 3 routes that are in the process of coordination and 10 others that have been requested.

2.3.3 Tracking the optimized routes. In order to keep track of the routes in progress and requested, a catalogue has been developed.

UPDATED: October 17, 2022							
Airline	City Pair	Southbound Route	Northbound Route	Status	Start Date	End Date	Comments
Aerolíneas Argentinas (ARG)	SAEZ - JFK - SAEZ	Not requested	SAEZ P75A KUREN UL33A MGGT UNR03 BU UNR43 KWDR DCT DONQU LISA OYBNU DCT WALE Y895 CAMEN DCT KURK	Approved (Extension)	7/15/2022	07/15/2023	Extension to be coordinated with San Juan. Request through 7/15/23
Aerolíneas Argentinas (ARG)	SAEZ - KMA - SAEZ	KMA GWAH41 URSUS UP40S BLSI UL795 LORBA DCT ENABU UP20S SE UNB89 LET UP27S R02 UL437 LONKH UN78H B0LT UL40H ISOP0 UL073 MLI2A UNW4 SNT SNTSA SAEZ	SAEZ BWAN4A BWAM UNW8 PAR UL417 PABON EA KLEF UN0779 ZEJUS WICE1 KMA	Approved		3/9/2023	Aerolíneas Argentinas has requested a route modification
Aerolíneas Argentinas (ARG)	KMA - SAEZ	KMA GWAH41 URSUS UP40S BLSI UL795 LORBA DCT ENABU UP20S SE UNB89 PABON PUEBU SARA PUBUM SNT SNTSA SAEZ	Not requested	In coordination			(1) No northbound route requested (2) Andres Guilhem added PUEBU to comply with Brazil's 300NM rule
Aerolíneas Argentinas (ARG)	MWJUN - SAEZ	MWJUN CW14A CTM UNB81 ANNO DCT BQADM DCT LBAS LB088 ARNEL UNW43 TAL UN1 JCL UL550 R05 UL072 MLI2A UNW4 SNT SNTSA SAEZ	Not requested	Approved	8/28/2022	11/27/2022	(1) No northbound route requested (2) COCESNA approved on condition of accepting the additions of SACIM. (3) ARG accepted the addition of SACIM
American (AA)	KMA - SPC - KMA	KMA MAH912 FUNDI DCT LEFON DCT ARNAL DCT TINPA DCT VAMOS DCT GVU DCT UNKUD DCT ATAU ATATU2 SPC	SPC SRE37 SREN DCT UNKUD UL780 GVU DCT VAMOS DCT TINPA DCT LEVOR UP336 GCM UG448 ATUW1 DCT W8X SN0902 KMA	Extension - In coordination	6/1/2022	10/7/2022	Extension to be coordinated with ECNA, ICA, Panama, Colombia, Ecuador, CORPAC, Chile. Request through 12/31/22
American (AA)	KDFW - SPC	KDFW ART28 TNV MUDYL L207 IPSEV UL207 CPE IOS LRR0S LKAS UL203 ATEN O UM432 TAL UN1 ATATU ATATU2 SPC	Not requested	To be coordinated			
American (AA)	KMA - SCL - KMA	KMA MAH912 FUNDI LEFON ARNAL TINPA VAMOS GVU VAKUD ATUTU UNAB UL303 SAKW SAKW02 SCL	SCL DONT48 DONTI UL780 SREN UNKUD UL780 GVU VAMOS TINPA LEVOR UP336 GCM UG448 ATUW1 W8X SN0902 KMA	Approved	TBD	TBD	Waiting for airline input on start date
Caribbean (BWA)	TFFF - KMA - TFFF	KMA S8P2 S8P5 Y200 HAGIT Y41 H488G L452 ANADA UG469 PERGA TRAK WAKUD ENOR TALLUS T22	TFFF DCT ANADA DCT MUNW2 DCT H488G Y380 ROED DCT MADZ DCT ENAD DCT CLRE LUR21 KMA	Approved		11/4/2022	
Caribbean (BWA)	TFFF - KJK - TFFF	KJK JFA S18P S18V S20S B2UJ2 S2MFR I5L5 SQUAD DARUK ENARI SUEI ODUCA GECE PERGA ITRAK NAFOR TALLUS T22	TFFF POS GECE ODUCA L459 SUEI ENARI DARUK L459 S4WV TALLU UTU1 M0UJ1 DWENT PRER L5EY CAMIN KJK	Unable			DNY denied request due to operational conflicts. Further coordination required
Copa (CMR)	MPTO - SBLG - MPTO	MPTO DCT ORER DCT DAKAD UNW36 VAGI DCT DBXL DCT GAWT DCT LKOD DCT 081505957W DCT PALEP DCT 340605339W DCT NAKIV DCT SAKCA DCT 0204W UT0KDA SBLG	SBLG EVR4D1A ENGOO DCT VULER DCT GELUB DCT NAKIV DCT SAMAR DCT ESAG DCT 090150539W DCT MMUM DCT 042805640W DCT GAWT DCT 0815 UN489 SAKNO DCT 12000 IS0C1 MPTO	Approved	5/9/2022	No end date	
Copa (CMR)	MPTO - KJAE - MPTO	KJAE PND40D T4RT DCT PRE DCT AULGN DCT OTOSD DCT PSAG DCT OTTI DCT ENOK DCT EMADA DCT IOS DCT ANSON DCT VUMAN VUMANIA MPTO	MPTO SIANKA SAMA DCT AMUJ DCT VOKAS DCT ATURO DCT AKOMU DCT BAULS DCT CVM DCT AVARA DCT ASUTA DCT AMOR G4A42 KJAE	In coordination			(1) Job initiated coordination with Panama, SENIAM and COCESMA in April 2022 (2) COCESMA approved - waiting on SENIAM and Panama (3) Job sent follow up email to Mario Hernandez on August 15, 2022 (4) Mario Hernandez said MPTO will be testing route to ensure operational feasibility
Delta (DL)	KATL - SPC - KATL	KATL S0E272 WALET DCT JPLEN Q79 MCLAW Y403 FUNDI DCT LEFON DCT ARNAL DCT TINPA DCT VAMOS DCT GVU DCT UNKUD DCT ARNTU ATATU2 SPC	SPC SREN37 SREN DCT UNKUD UL780 GVU DCT VAMOS DCT TINPA DCT LEVOR UP336 GCM UG448 ATUW1 DCT W8X Y383 POAY Q87 MATAU Q77 S18K5 DCT LAIR DCT LARZ JEDD KATL	Approved (Extension)		12/31/2022	Approval was received to continue Step 4 Trial until 12-31-2022. Extension coordinated with ECNA, ICA, Colombia, Panama and CDRAC have approved via their AICL. William Rubiano coordinated with Colombia
Delta (DL)	KATL - SGR - KATL	KATL V8T72 M0N DCT WANTI Q88 M4NLE Y385 RENAI Y355 FIPK Y294 QF50 L4E5 ANADA DCT K0RTO DCT S4RJA - SGR	SGR - SUMNA DCT K0RTO DCT ANADA L4E2 H488G Y421 HAGT Y386 QF50 Y385 M4NLE Q88 S18K5 DCT LAIR DCT LARZ JEDD KATL	Approved		10/25/2022	
Delta (DL)	KATL - SAEZ - KATL	KATL V8T72 M0N DCT WANTI Q88 S18K5 DCT CRG DCT DE3BL DCT OMVN DCT URSUS UP40S BLSI UL795 LORBA DCT ENABU DCT S0BKA DCT VULUD DCT LONAX DCT PURAS DCT LET DCT ELPOL DCT ISARA DCT PUBUM UL437 TOPOG UL404 ISOP0 UL073 MLI2A UNW4 SNT SNTSA SAEZ	SAEZ BWAN4A BWAM UNW8 PAR UL417 PUBUM DCT CT8A DCT PUJ09 DCT ARUKA DCT LONAX DCT IROTI DCT NEVRA UL413 LONAX DCT AUB UNM77 ZEJUS DCT OCTAL Q77 S18K5 DCT LAIR DCT LARZ JEDD KATL	Approved (Extension)	6/24/2022	12/31/2022	Extension to be coordinated with ECNA, ICA, Colombia. Request through 12/31/22. William Rubiano obtained approval from Colombia and Bolivia until 4/15/2023
Delta (DL)	KATL - SAEZ	KATL V8T72 M0N DCT WANTI Q88 S18K5 DCT CRG DCT DE3BL DCT OMVN DCT URSUS UP40S BLSI UL795 ALTB DCT NETTU DCT ENABU DCT SIND DCT GEAR DCT LONAX PURAS DCT LET DCT ELPOL DCT ISARA DCT PUBUM UL437 TOPOG UL404 ISOP0 UL073 MLI2A UNW4 SNT SNTSA SAEZ	Not requested	Approved	10/18/2022	12/31/2022	William Rubiano (DL) has coordinated and received approval from Paraguay, Bolivia and Colombia
Delta (DL)	KATL - SCL - KATL	KATL V8T72 M0N DCT WANTI Q88 S18K5 DCT CRG DCT DE3BL DCT OMVN DCT URSUS UP40S BLSI UL795 ALTB DCT NETTU DCT ENABU DCT SIND DCT GEAR DCT LONAX PURAS DCT LET DCT ELPOL DCT ISARA DCT PUBUM UL437 TOPOG UL404 ISOP0 UL073 MLI2A UNW4 SNT SNTSA SAEZ	Not requested	To be coordinated			
Gol Linhas Aéreas (GOL)	SBR - MWJUN - SBR	MWJUN L2N R2TORJA R2OTOP UN783 ARNAL DCT ROKIN DCT IROTI DCT TME DCT 40D5 DCT AKPEP DCT M848 DCT ISRA DCT BAKL DCT XINGU DCT MALM UL233 FAFES 080023A SBR11L	SBR11L R2TVLUB PAFES L233 MALM DCT TLOS DCT PUMTU DCT 02W7 UNW56 ENOKU DCT M848 DCT AKPEP DCT 40D5 DCT TME DCT 01BAM UNW30 MGN DCT ALPON DCT LEVOR DCT SBRUD DCT ANKO DCT PAULI P4ULE1H MWJUN R2L	To be coordinated			
Gol Linhas Aéreas (GOL)	SBR - MDPC - SBR	Not requested	SBR080L UNW6V2D UNW6V UN736 KEKHT UNW6 ROMKY DCT OPRUX DCT UNW8 DCT VUB8 DCT DABUD DCT UNW4 DCT ESPT DCT BLVJP DCT LEP DCT ANAG UNW23 MFA DCT UTG5 DCT AMUJ DCT SAKO RNW MDPC08	To be coordinated			
United (UAL)	KJAI - MSLP - KJAI	KJAI S12AK WWRNEN KANA KEKX DCT BASKO VSA ASOKU OUSU MSLP	MSLP OUSU UG436 ALR UNW400U VSA BASKO TADT KEKX SAMA1 25 CRFUTW4W KJAI	Approved		Ad Hoc Basis	Gen requested these routes for ferry flights that need to comply with overwater regulations on an ad hoc basis. Approved by Mario Hernandez with one condition-UAL must send flight plan into 30 hours before each flight. Gen Schree notified
United (UAL)	KJAI - MAPP - KJAI	KJAI - CRP M7Y OTEKA K02MA MAPP	MAPP MUXED UT148 OTEKA M7Y CRP - KJAI	Approved		11/30/2022	
United (UAL)	KJAI - AMMD - KJAI	KJAI - PNG DCT CO2LE DCT TENAF MWGD	AMMD DCT US80G DCT OUESI DCT CLU UL023 S8V J29 CRP KJAI	To be coordinated			
United (UAL)	KJAI - AMAG - KJAI	KJAI - DEVCE AKEDD UNV8 MWGC	AMAG - G7W5 AUVIO DEVCE CRP - KJAI	To be coordinated			
Emirates (UAE)	MWJUN - SGR - Option 2	TEU02 UT113 ONA DCT SPINA UL318 BULAD	Not requested	To be coordinated			
Emirates (UAE)	KMAK - SGR - Option 1	TEU02 UT113 ONA DCT ALKA UL338 PALAD	Not requested	To be coordinated			
Emirates (UAE)	KORD - SGR	SACEN DCT SLEOR DCT BEKO DCT FNU DCT S05 I35 M03 DCT HRV L333	Not requested	To be coordinated			
Emirates (UAE)	MWJUN - KJAI	PSAD UL333 UL33A UNK40 SPP DCT BUT DCT TOKUT UMEN4 NEGAL DCT	Not requested	To be coordinated			
Emirates (UAE)	MWJUN - KJAI	Not requested	OTOK DCT UNWIK DCT M7Y J29 CRP DCT UMEDA	To be coordinated			

2.3.4 It has been determined that to maintain order, the optimized routes in trial basis will be limited to 20 trials at any given point in time. States will be encouraged to publish routes that have been in use for several months in their AIPs/AICs. Once that is accomplished, room for other trial routes become available. A State letter was sent out with a template for the process to publish the first six routes.

2.4 **Track B** results. There is currently 1 route that has been approved and is flying a User Preferred Route (UPR). This route is between Atlanta and Lima. As mentioned in 2.1, this is the first step towards FRA. We do have good metrics on this route as shown.

	Baseline vs UPR	
Savings	12 Day	1 Year
Flight min:	116	3,528
Fuel (lb):	12,479	379,570
CO2 (kg):	17,887	544,057
Cost (\$):	15,325	466,138

Estimation of 1-year savings based on 12 days

2.5 We are coordinating with Aerolíneas Argentinas on the second UPR route which will fly between Miami and Buenos Aires.

2.6 The CIIFRA Team has also worked with Mexico in testing Strategic Direct Routings (SDRs) in their airspace. The initial trials include three airlines and are limited to operations at or above FL290 between the hours of 0000 and 0500 local. Flights are required to file fixes that are no greater than 400 miles apart, but otherwise the participating airlines are free to file and fly as desired. These trials began in early October and have been successful. The plan is to slowly expand the parameters (Airlines, Time and Altitude), as able. The following table provided by United Airlines illustrates their savings in the initiative.

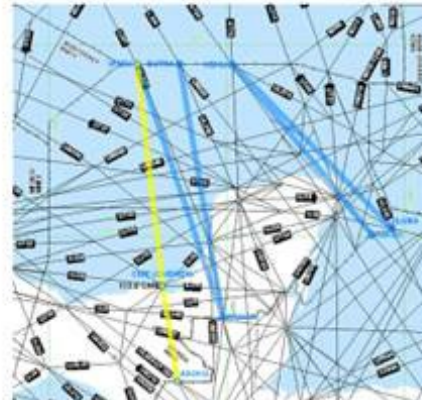
UAL Report on Mexico’s SDR Trial

City Pairs

1. SBGR-KIAH
2. SAEZ-KIAH
3. SBGL-KIAH
4. SPJC-KIAH
5. SCEL-KIAH
6. SKBO-KIAH
7. SEQM-KIAH
8. MGGT-KIAH

Direct Route Segments Used

1. ASOKU-IPSEV
2. ILUBA-KEHLI
3. MUVAP-DUTNA
4. MUVAP-IPSEV
5. SIGMA-DUTNA
6. TAKUX-KEHLI



Mexico’s SDR Trial – UAL Benefits (½ month)

Duration: 03 OCT-16 OCT; Northbound only between 05Z-11Z

City Pairs	No.	Saved				Per Flight			
		Time (min)	Fuel (lb)	CO2 (kg)	Cost (\$)	Time (min)	Fuel (lb)	CO2 (kg)	Cost (\$)
SBGR-KIAH	7	14.0	4,942	15,320	2,548	2.0	706	2,189	364
SAEZ-KIAH	9	11.0	4,865	15,082	2,310	1.2	541	1,676	257
SBGL-KIAH	6	12.0	2,584	8,010	2,088	2.0	431	1,335	348
SPJC-KIAH	3	3.0	795	2,465	522	1.0	265	822	174
SCEL-KIAH	10	11.0	2,792	8,655	1,914	1.1	279	866	191
SKBO-KIAH	1	1.0	126	97	391	1.0	126	97	391
SEQM-KIAH	3	7.0	905	2,806	679	2.3	302	935	226
MGGT-KIAH	1	3.0	320	992	600	3.0	320	992	600
Total	40	62.0	17,329	53,426	11,052				

To calculate cost benefits, equipment types were taken into the consideration.



2.7 As many of the routes fly into South American airspace, we have coordination through Fernando Hermoza of ICAO's SAM Regional Office and Julio De Souza Pereira of IATA. Both are participants of the CIIFRA Team.

2.8 As the Taskforce transitioned from PBN Taskforce to Airspace Optimization Taskforce, an ad hoc group convened during the last week of July, 2022 in order to revise the Taskforce Terms of Reference, Work Programme and Caribbean Region Airspace Optimization concept paper.

2.9 Airspace Optimization Task Force Meeting in Miami, FL from 2 to 4 August 2022. The ad hoc group presented the Terms of Reference, Work Programme and the Caribbean Region Airspace Optimization concept paper. It was decided that further revisions were required and after the core group is selected and convened, the documents will be finalized by October 2022.

2.10 The following six action items were decided during this Meeting.

2.10.1 Action Item 1: The Secretariat to issue a letter requesting nominations for the core members of the AO/TF by 19 August 2022. It was agreed to remove “airline operator” from the list of core members as that function will be supported by IATA-**Completed**

2.10.2 Action Item 2: The AO/TF to analyze IATA's recommendation on harmonization in the phraseology for DCT and UPR usage and report back by the February 2023 meeting.-**To be completed**

2.10.3 Action Item 3: A subsequent meeting to be held with the AO/TF core members to work on finalizing the AO/TF Work Programme to be presented by October, 2022.-**to be completed**

2.10.4 Action Item 4: An Ad hoc Group comprising relevant stakeholders from the ANSP, Airline Operators, Airport Operators and SMEs to be developed to follow up on IATA's recommendation to add the Airport Efficiency Programme to the AO/TF work programme to continue the optimization efforts of the upper airspace and terminal area to the airport level as airport constraints affect terminal airspace optimization by November 2022 and to meet as needed in order to provide a briefing at the February 2023 meeting. **The Meeting was held on 23 August 2022 discussing the development of this group. The membership was decided on and work will presume.**

2.10.5 Action Item 5: The Airport Efficiency Programme to be included under the work programme of the AO/TF, as part of a holistic Airspace Concept Implementation Model at the next gathering of the AO/TF.-**in process**

2.10.6 Action Item 6: An Ad hoc Group to be created to work on “Terminal Airspace Concepts” to consolidate different concepts for arrivals/departures so that States may have ideas on which concept may benefit that state better by November 2022 and meet as needed in order to provide a briefing at the February 2023 meeting.- **Meeting was held on 23 August 2022 discussing the development of this group. The membership was decided on and work will presume**

2.11 The AO Task Force is also working on an Optimized Airspace concept for the CAR region, which includes harmonized separation standards, airspace restructuring, Performance Based Navigation, and Free Route Airspace. Goals are being established for the optimization of airspace to allow continuous flow in the upper and lower airspace of contiguous Flight Information Regions (FIRs) and terminal areas (TMAs). A draft was presented at the Miami general meeting and will continue to be worked on with another draft to be presented in February.

2.12 As requested by the AO TF, CANSO is organizing a terminal redesign workshop for senior management. The workshop is to understand the different designs and requirements they must consider when making such a significant change. The first one-day workshop, which is scheduled for December 2022, will set the foundation and a one-week workshop will take place during the second or third quarter of 2023.

2.13 The positive outcome of merging groups to create the AO TF, and the outstanding collaboration through the CIIFRA project, prove efficient and cost-effective to the States. Considering the tangible results of the AO TF and CIIFRA, TF members agreed to organize the first combined Meeting of the ATFM TF, AO TF, and CADENA RIG. The approach will allow the groups to link and work on common matters, enhance decision-making, and support the work across the groups. The first Meeting will take place in the first quarter of 2023.

3. Suggested actions

3.1 The Meeting is invited to:

- a) evaluate the progress of the Airspace Optimization/TF;
- b) review and support the Airspace Optimization/TF recommendations indicated in Section 2; and
- c) propose any other actions as deemed necessary.