



SAM ATSRO/8

**INTERNATIONAL CIVIL AVIATION ORGANIZATION
South American Regional Office**

RLA/06/901 Regional Project

**EIGHTH SAM MEETING ON ATS
ROUTES NETWORK OPTIMISATION**

(SAM ATSRO/8)

FINAL REPORT

Lima, Peru, 11 to 15 September 2017

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HISTORY OF THE MEETING

ii-1 PLACE AND DURATION OF THE MEETING

The Eighth SAM Meeting on ATS Routes Network Optimisation (SAM ATSRO/8) was held at the premises of the ICAO South American Regional Office in Lima, Peru from 11 to 15 October 2017, under the support of RLA/06/901 Regional Project.

ii-2 OPENING CEREMONY AND OTHER MATTERS

Mr. Onofrio Smarrelli, on behalf of the Acting Director of the ICAO South American Regional Office, welcomed the participants, highlighting the objectives of the Meeting and clarifying the issues to be discussed during the event. Likewise, he thanked the participants, aeronautical authorities and international organisations for their attendance to this important event and emphasized the significance of the work to be done to continue with the development of PBN in the Region and start the implementation of Version 04 of the SAM ATS Route Network. Afterwards he opened the Meeting.

ii-3 SCHEDULE, ORGANIZATION, WORKING METHODS, OFFICERS AND SECRETARIAT

The Meeting agreed to hold its sessions from 08:30 to 15:30 hours, with appropriate breaks. The work was done with the Meeting as a single committee, contemplating the conformation of *ad-hoc* Groups to treat some subjects of the Agenda and to analyze the different route proposals which were consolidated during the PBN workshops.

Mrs. Flor Silvera, from the delegation of Panama, was unanimously elected as Chairwoman of the Meeting and Mr. Cesar Varela, delegate from Bolivia was elected as Vice-Chairman. Messrs. Nicolas Borovich, from Argentina, Sady Beaumont, from Peru and Tomas Macedo, from Peru, acted as Rapporteurs of the Pacific, Atlantic and CAR-SAM Harmonisation Groups, respectively.

The Secretariat of the Meeting was coordinated by Messrs. Fernando Hermoza Hübner, ATM/SAR Regional Officer and Roberto Sosa España, ANS & SFTY Regional Officer of the South American Regional Office.

ii-4 WORKING LANGUAGES

The working language of the Meeting was Spanish with simultaneous interpretation in English and its relevant documentation was presented in Spanish and English.

ii-5 AGENDA

Agenda Item 1: Review of the ICAO South American Region ATS Routes Network Optimisation Programme.

Agenda Item 2: PBN implementation control and CCO/CDO concepts.

Agenda Item 3: Analysis of Version 04 of the SAM ATS routes network and SAM-CAR inter-regional ATS routes.

Agenda Item 4: Other business.

ii-6 ATTENDANCE

The Meeting was attended by ten States of the SAM Region: Argentina, Bolivia, Brazil, Chile, Ecuador, Guyana, Panama, Paraguay, Peru and Venezuela, one State of the CAR Region: Jamaica, as well as two International Organizations: IATA and IFALPA, totaling 27 participants. The list of participants is shown in page iii-1.

ii-7 LIST OF CONCLUSIONS

No.	Title	Page
ATSRO/8-1	Implementation of Version 04 of the SAM Routes Network	3-2

LIST OF PARTICIPANTS / LISTA DE PARTICIPANTES**ARGENTINA**

1. Guillermo Cocchi
2. Juan Pablo Duval
3. Nicolás Borovich
4. Mauricio David Vélchez

BOLIVIA

5. César Augusto Varela Carvajal
6. Andrea Rubin de Celis Soria Galvarro

BRASIL

7. Luiz Antonio Dos Santos
8. Emerson Augusto Miranda

CHILE

9. Marco Antonio Abarca

ECUADOR

10. Alis Villavicencio

GUYANA

11. Rickford Samaroo

JAMAICA

12. Courtney Malcom
13. Tameka Williams

PANAMÁ

14. Flor Eneida Silvera
15. Ana Teresa Montenegro de De León

PARAGUAY

16. Jorge Adalberto Herreros Domínguez
17. Liza Soledad González Sena

PERU

18. Eloy Bautista Tafur Carbajal
19. Sady Orlando Beaumont Valdez
20. Tomás Macedo Cisneros
21. Marco Vargas Sagástegui

VENEZUELA

22. José González

IATA

23. Julio de Souza Pereira
24. David Guerrero (AVIANCA)
25. Rocco Heesters (KLM)
26. Ruben Jonker (KLM)

IFALPA

27. Osvaldo Jodas López Neto

ICAO / OACI

28. Fernando Hermoza Hübner
29. Roberto Sosa España

Agenda Item 1: Review of the ICAO South American Region ATS Route Network Optimisation Programme

1.1 Under this agenda item, the Meeting reviewed the following papers:

- WP/03 - *PBN concept of operations for SAM airspace - Period 2018-2020* (presented by the Secretariat); and
- WP/04 - *ATSRO Action Plan* (presented by the Secretariat).

PBN concept of operations for SAM airspace

1.2 The Meeting was presented with the PBN concept of operations (CONOPS) for SAM airspace for the period 2018-2020, with the comments received during the SAM/IG/19 workshop/meeting. Regarding regional planning for the en-route airspace segment, it was noted that, according to the CONOPS, the implementation of PBN-based ATS route network versions would continue to be the main feature of en-route airspace optimisation in the SAM Region. The review and implementation of the route network would be based on a collaborative process among the States, adapting it to the main traffic flows and emphasising the establishment of trunk routes.

1.3 The Meeting recalled that, at the end of the period foreseen in the CONOPS, the continental upper airspace of the SAM Region, or part of it, would be exclusionary for RNAV-5 navigation specification, and in those airspaces that required increased airspace capacity, RNP2 or A-RNP would be implemented.

1.4 It was noted that the CONOPS contained a table with metrics and performance indicators to measure progress made in the proposed tasks. In this regard, the Meeting agreed on the importance of developing indicators to measure performance goals in each PBN implementation, which could be expressed in improvement indices related to en-route delays, departure delays, fuel consumption, ATC workload, capacity/demand increments, etc.

1.5 In this regard, the Secretariat noted that a series of activities had been scheduled for 2018 to improve the aforementioned indicators and metrics, including the revision of the Regional Implementation Plan SAM-PBIP or, failing this, the drafting of Volume II of the eANP.

1.6 The Meeting took note that the CONOPS would be included as an attachment to the revised Regional Implementation Plan SAM-PBIP, which would be submitted to the consideration of the forthcoming Meeting of Civil Aviation Authorities (RAAC/15) to be held in December 2017. Once approved, the CONOPS shall be used as a reference for airspace planning and route network optimisation, allowing for the establishment of harmonised PBN implementation goals for the SAM Region for the period 2018-2020.

ATSRO Action Plan

1.7 It was noted that, given the time elapsed between ATSRO/7 and the current Meeting, it was advisable to develop and approve an updated ATSRO Action Plan containing the activities still pending and incorporating aspects of the new PBN concept of operations (CONOPS) for SAM airspace.

1.8 With the holding of the PBN/1 and PBN/2 workshops and the PANS-OPS/1 in 2016, as scheduled, and with Version 04 of the Route Network already available, it was agreed that the South American Airspace Optimisation Action Plan had been partially fulfilled.

1.9 In this sense, the Meeting agreed to adopt the ATSRO Action Plan shown in **Appendix A** to this part of the report. Regarding the activities listed in said Plan, the Meeting highlighted the need to continue optimising the route network, taking into account the interface with the CAR Region and the incorporation of activities to improve the airspace below flight level 245.

1.10 Accordingly, the Meeting felt that a request should be made to Regional Project RLA/06/901 for the conduction of the Ninth SAM workshop/meeting on ATS route network optimisation in 2018 to follow up on the implementation of Version 04 of the Route Network and keep the publication and implementation programme duly harmonised.

1.11 Furthermore, recognising the importance of meeting the goals of the Declaration of Bogota, the Meeting agreed to request the support of Project RLA/06/901 for the conduction of a study to draft Version 05 of the Route Network, taking into account interregional implementation (CAR-SAM) of RNAV-5 navigation specification, the inclusion of the airspace below FL245, and implementation of RNP2 in selected airspaces.

1.12 The Meeting also requested the Secretariat to incorporate the ATSRO Action Plan into the updated SAM Airspace Optimisation Plan to be submitted to the SAM/IG/20 meeting in October 2017, for discussion and approval.

APPENDIX A

ATSRO ACTION PLAN

Activity	Start	End	Responsible	Remarks
1. SAM Route Network				
1.1. Version 04 of Route Network – RNAV-5				
<p>1.1.1. Perform detailed study of the SAM ATS Route Network, with a view to developing Version 04 of the Route Network (TMA - Arrival/Departure/RNAV-5 route segment interface), including:</p> <ul style="list-style-type: none"> • Prepare work plan for the participation of hired/loaned experts and experts from States/International Organizations who would support the preparation of the preliminary draft. • Determine tools required to conduct the study (aeronautical charts, specific software). • Analyse traffic data to understand traffic flows. • Analyse fleet navigation capacity. • Prepare the preliminary draft of Version 04 of the SAM Route Network, including control sectors, TMA interface, etc. • Assess the feasibility/need to assess the preliminary design using “<i>airspace modelling</i>” tools and fast-time ATC simulation. • Propose the initial draft of the Proposal of Amendment to the CAR/SAM ANP. • Prepare the Plan for the Optimisation of Restricted, Prohibited, Danger and Reserved Use Zones of the SAM Region. 	SAM/IG/18 (October 2016)	June 2017	SAM/PBN/IG (Project RLA/06/901) States IATA IFALPA ATM RO	<ul style="list-style-type: none"> • Hiring/“loaning” of 2 experts for 3 weeks in order to prepare a preliminary draft. <p>NOTE: PBN implementation in SAM TMAs progressed during 2016 and 2017. Examples: Argentina (Baires in process), Brazil, Colombia and Paraguay.</p> <p style="text-align: center;">FINALISED</p>

Activity	Start	End	Responsible	Remarks
<ul style="list-style-type: none"> • Calculate fuel/CO₂ savings using IFSET to validate the preliminary design of the SAM airspace structure, covering routes/SIDs/STARs. • Prepare “SAM Route Network, Version 04” document. • Prepare working paper for the ATSRO/8 meeting. 				
<p>1.1.2. Hold the Eighth Workshop/Meeting on SAM ATS Routes Optimisation, with the purpose of reviewing Version 04 of the Route Network. Includes:</p> <ul style="list-style-type: none"> • Review draft Version 04 of the ATS Route Network. Define implementation process. 	SAM/IG/18 (October 2016)	ATSRO/8 (September 2017)	Project RLA/06/901 States ATM RO	FINALISED
<p>1.1.3. Joint work with States for them to perform the risk analysis on the SAM Region Route Network, Version 04.</p>	ATSRO/8 (September 2017)	ATSRO/9 (July 2018)	Project RLA/06/901 States ATM RO	<ul style="list-style-type: none"> • Will be done through teleconferences and distribution of documents as guideline, if required.
<p>1.1.4. Analysis and incorporation in SAM implementation activities, of route optimisation initiatives originated in the CAR Region and coordinated with NACC Office.</p>	NACC III PBN Meeting (September 2017)	ATSRO/9 (July 2018)	Project RLA/06/901 States ATM RO	<ul style="list-style-type: none"> • Will be done through teleconferences. Coordination during SAM/IG/21 meeting (May 2018) will be considered.

Activity	Start	End	Responsible	Remarks
1.1.5. Conduct the Ninth Workshop/Meeting on SAM ATS Routes Network Optimisation, with the purpose of monitoring the implementation of Version 04 of the Route Network and adjusting the programme of publication and entry into force. Initiatives coordinated with NACC Office will be included.	ATSRO/8 (September 2017)	ATSRO/9 (July 2018)	Project RLA/06/901 States ATM RO	
1.1.6. NAM-CAR-SAM inter-regional coordination to define implementation of exclusive RNAV-5 airspace above FL245.	TBD	TBD	SAM Regional Office NACC Regional Office	
1.2. Version 05 of Route Network <ul style="list-style-type: none"> ○ RNAV-5 Regional and Inter-regional upper airspace ○ RNAV-5 for airspace below FL245 ○ RNP2 for Continental and Oceanic airspaces 				
1.2.1. Perform study to develop Version 05 of Route Network, considering implementation of RNAV-5 and RNP2 navigation specification in selected airspaces. It includes: <ul style="list-style-type: none"> • Prepare work plan on the participation of hired/loaned experts and experts from the States/International Organizations who would support the preparation of the preliminary draft. • Define the tools required to conduct the study (aeronautical charts, specific software). • Analyse traffic data. Study of regional and inter-regional upper airspace routes network, optimization and replacement of conventional routes. 	ATSRO/8 (September 2017)	SAM/IG/22 (2018)	Project RLA/06/901	2 experts will be hired for 3 weeks. Tentative date: September 2018

Activity	Start	End	Responsible	Remarks
<ul style="list-style-type: none"> • Analyse TMA or involved aerodromes interfaces. Select airspaces for RNAV-5 application in regional route. • Analyse traffic data for airspace involving regional routes below FL245. Analyse fleet navigation capacity, in detail on the general aviation fleet. • Analyse traffic data for RNP2 oceanic airspace. Analyse fleet navigation capacity. • Prepare the Plan for Optimisation of Restricted, Prohibited, Danger and Reserved Use Zones of the SAM Region. • Calculate fuel/CO₂ savings using IFSET to validate the preliminary design of the SAM airspace structure, covering routes/SIDs/STARs. • Develop deliverable “Version 05 of SAM Route Network”, including harmonized implementation plan. • Prepare working paper for SAM/IG/23. 				
1.2.2. Review preliminary deliverable of Version 05 of Route Network. Analyse and propose changes to harmonized implementation plan, as required.	SAM/IG/23 (2019)	SAM/IG/23 (2019)	Project RLA/06/901 States ATM RO	
1.2.3. Hold the Tenth Workshop/Meeting on SAM ATS Routes Network Optimisation, to review Version 05 of the Route Network. It includes: <ul style="list-style-type: none"> • Review draft Version 05 of the ATS Routes Network. Define process according to harmonized implementation plan for RNP2 and selected airspaces below FL245, respectively. 	SAM/IG/23 (2019)	ATSRO/10 (2019)	Project RLA/06/901 States ATM RO	

Activity	Start	End	Responsible	Remarks
1.2.4. Perform risk analysis of Version 05 of the SAM ATS Routes Network, coordinating such activities with involved States.	ATSRO/10 (2019)	TBD	Project RLA/06/901 States ATM RO	1 expert will be hired for 2 weeks.
1.2.5. Hold the Eleventh Workshop/Meeting on SAM ATS Routes Network Optimisation, with the purpose of monitoring implementation of Version 05 of Routes Network and adjusting the programme of publication and entry into force.	TBD	TBD	Project RLA/06/901 States ATM RO	

Agenda Item 2: PBN implementation control and CCO/CDO concepts

2.1 Under this agenda item, the Meeting reviewed the following paper:

- WP/05 - *Excel table for PBN and CCO/CDO implementation control* (presented by the Secretariat).

2.2 The Meeting took note that most States had submitted the data requested at the SAM/IG/19 meeting on the implementation of PBN and CCO/CDO procedures, required for the completion of the Regional Implementation Control Table.

2.3 It was also noted that several States had not delivered the information on a timely basis or had continued implementing flight procedures during the first half of 2017. Accordingly, it was necessary to review, update, and complete the data concerning each State at this Meeting.

2.4 In this regard, the participants reviewed the table and updated the information corresponding to ten States.

2.5 The Secretariat noted that it would coordinate with the four SAM States that had not been able to attend the Meeting in order to complete or update their implementation data. Thus, the consolidated and updated table would be ready to be submitted to the SAM/IG/20 meeting in October 2017.

2.6 It was noted that the RNAV route implementation or optimisation tasks were closely related to the progress made in the approach, arrival, and departure procedures shown in the table. Accordingly, the States could use the Excel Table for national planning and for monitoring implementation, including their domestic aerodromes that were not listed in Table AOP of the eANP.

Agenda Item 3: Analysis of Version 04 of the SAM ATS route network and SAM-CAR interregional ATS routes

3.1 Under this agenda item, the Meeting reviewed the following papers:

- WP/02 - *SAM route network optimisation* (presented by the Secretariat);
- NE/06 - *UB555* (presented by Uruguay - Spanish only);
- NE/07 - *Proposals in Version 04 of the route network: 4-02, 4-03, 4-28, 4-36 and 4-79* (presented by Uruguay - Spanish only);
- NE/08 - *Realignment of route UM671* (presented by Uruguay - Spanish only); and
- NE/09 - *Deletion of route UA556* (presented by Uruguay - Spanish only).

3.2 Messrs. Luiz Antonio dos Santos and Tomás Macedo Cisneros, consultants engaged under Regional Project RLA/06/901, delivered on 23 June 2017 a preliminary report on the Optimisation of the SAM ATS Route Network, Version 04, contained in Excel Table “SAMATSRO8_Asu3_APNa_MASTER_V04” which was made available to the Meeting.

3.3 This original deliverable included 91 proposals for the realignment and deletion of routes, and the implementation of new RNAV routes. In summary, the document proposed:

- Deleting 57 regional conventional routes;
- Deleting 6 regional RNAV routes, as a result of optimisation and harmonisation;
- Implementing 33 new RNAV routes;
- Modifying 62 RNAV routes, involving the realignment, extension, or shortening of existing RNAV routes; and
- Reducing the flight distance in 52 proposals; if all of these proposals were implemented, a total reduction of 682 NM of flight would be achieved.

3.4 In order to continue optimising the route network, the Meeting considered the implementation of Version 04 of the SAM Route Network, as shown in the original deliverable, and of a group of new initiatives that were consolidated during the discussions of the Meeting, especially with the support of IATA, IFALPA and aircraft operators.

3.5 The deliverable was analysed in three working groups organised according to prevailing traffic flows, with the support of the experts of IATA, IFALPA and the Secretariat.

3.6 The Atlantic Group consisted of experts from Argentina, Brazil, Bolivia and Paraguay. In addition to its coordination activities, this group held a teleconference with officials of Uruguay -whose delegates could not attend the Meeting- concerning working papers SAM ATSRO/06, 07, 08, and 09, generating a productive discussion and decision-making.

3.7 Similarly, the Pacific Group, consisting of Bolivia, Chile, Ecuador, Guyana, Panama, Peru and Venezuela, analysed the initiatives corresponding to the FIRs concerned.

3.8 The CAR-SAM Harmonisation Group, composed by Jamaica and Panama, with the assistance of a rapporteur and the Secretariat, analysed the initiatives of mutual interest contained in Version 04, but no progress could be made in the initiatives involving the Barranquilla FIR. Some commonalities were observed between the proposals in Version 04 and others being considered since 2016 in the CAR and NAM Regions (promoted by the NACC Office). However, some of them required the opinion of Colombia, that could not attend the Meeting, and decisions were required at the level of the Caribbean Region.

3.9 The presence of experts from Jamaica was quite beneficial, since the Meeting had the opportunity of analysing potential improvements in routes between the CAR and SAM Regions, giving start to harmonisation efforts that could escalate in the following months based on the results of this Meeting and of the Third PBN harmonization, modernization and implementation meeting to be held in Mexico starting on 25 September 2017.

3.10 Each Group presented the results obtained for each initiative, as shown in **Appendix A** to this part of the report. The Meeting noted that the results of its analysis and coordination work might be subject, in some cases, to revision or validation by other technical or operational authorities in the States. In this sense, proposals have been obtained that were considered as accepted and others with sufficient viability to continue the coordination activities that are required through the Secretariat.

3.11 In total, the Meeting analysed 95 proposals, accepting 30 of them and rejecting 13. In such sense, the remaining 52 initiatives will continue with pending coordination activities.

3.12 Following a detailed analysis of the preliminary report on the optimisation of the SAM ATS route network, Version 04, the working papers submitted by the States and the users, and the suggestions for optimisation of the material submitted by the participants, the Meeting formulated the following conclusion:

Conclusion ATSRO/8-1 Implementation of Version 04 of the SAM Route Network

The delegates of SAM States approve the Route Network Version 04 optimisation initiatives shown as approved in Appendix A to this part of the report. Following the Meeting, if any State concerned must consult, revise or validate internally any initiative, it shall communicate any resulting comment, requirement or cancellation in a working paper to be submitted to the SAM/IG/20 meeting, scheduled for October 2017.

Notwithstanding the above, the AIRAC publication dates for the implementation, modification, or deletion of the approved routes are agreed in three stages, as follows:

- a) Publish AIP AMDT or SUP on 26 April 2018, effective on 21 June 2018;
- b) Publish AIP AMDT or SUP on 21 June 2018, effective on 16 August 2018: and
- c) Publish AIP AMDT or SUP on 16 August 2018, effective on 11 October 2018.

The aforementioned publication dates must be ratified by the States for the routes under their responsibility, via teleconference with the Regional Office, at least forty-five (45) calendar days in advance.

3.13 Finally, after identifying the set of routes subject to optimisation, the Meeting requested the Secretariat to coordinate the calculation of CO₂ emission savings, using the IFSET tool, for the set of optimised routes.

3.14 To this end, the States pledged to provide aircraft traffic data using the templates to be circulated by the Secretariat. Likewise, support would be requested from IATA for the provision of data on NM flown by its members in certain traffic flows of interest.

3.15 Delegates and representatives highlighted the support of Project RLA/06/901, to carry out a regional meeting about Letters of Agreement and Contingency Plans, the first quarter of 2018, in order to allow States to review data of the implemented routes.

APPENDIX A

SAM REGION ATS ROUTES

NETWORK OPTIMISATION

VERSION 04

RESULT OF GROUPS ANALYSES

BASED ON

MASTER V04 OF ROUTES NETWORK

(presented on Appendix A to working paper SAM ATSRO/08-WP/02)

PART I**SUMMARY OF THE ATLANTIC GROUP**

- **Participating States present:**
 - **Argentina**
 - **Bolivia**
 - **Brazil**
 - **Paraguay**

Uruguay presented its position through working papers, and a teleconference was held between the Group and DINACIA officials on 13 September at 1500 UTC.

NOTE.- The initiative is accepted in part or in full, as justified in the text contained in the analysis/agreement section.

4-02	Proposal	
Brazil * Uruguay	Delete UA305 between NELOX and LDS. Create RNAV UM xxx between NELOX and LDS. Distance saved: 0.4nm.	
Analysis/Agreement	<ul style="list-style-type: none"> * Through WP/07, Uruguay agrees to extend airway UM424 from NELOX to LDS. *Uruguay agrees to publish in June. Brazil agrees to extend from NELOX to LDS. Brazil proposes publication in June 2018. 	ACCEPTED between NELOX y LDS
Date of publication	TBD	

4-03	Proposal	
Brazil * Uruguay Argentina	Delete route UA310 Extend UM792	
Analysis/Agreement	<ul style="list-style-type: none"> Brazil: Already implemented. Plans to publish in April, effective June. * Uruguay: Agrees, in accordance with WP/07. Argentina: Agrees. 	ACCEPTED
Date of publication	TBD	

4-12	Proposal	
Argentina * Uruguay	Delete UB555 Create route UXXXX	
Analysis/Agreement	<ul style="list-style-type: none"> Argentina: Rejects the deletion of UB555 due to existing traffic between CRR and CBA. * Uruguay: Accepts the deletion of UB555 between CRR and PAR and requests to add route UMXXX between DUR and TUC. Avianca: Suggests to maintain route UB555. 	Proposal is rejected
Date of publication	N/A	

4-13	Proposal	
Argentina	Delete UW8 Extend UL404	
Analysis/Agreement	<ul style="list-style-type: none"> Argentina: Rejects the proposal due to conventional traffic on UW8. 	Proposal is rejected
Date of publication	N/A	

4-26 y 4-52	Proposal	
Bolivia Brazil	Realign UL540	
Analysis/Agreement	<ul style="list-style-type: none"> Bolivia: Proposes the realignment of UL540 between Viru Viru and ASIKI with a common point of transfer in the intersection with UM668 (15°17'54.34"; 060°15'01.7"). Brazil: Agrees to the proposal of Bolivia. 	ACCEPTED Proposal accepted
Date of publication	Bolivia and Brazil agree to publish on 26 April 2018	

4-27	Proposal	
Brazil	Delete UM788	
Analysis/Agreement	<ul style="list-style-type: none"> Brazil: Deletion will be published in April 2018. 	ACCEPTED Proposal accepted
Date of publication	26 April 2018	

4-28	Proposal	
Argentina Brazil * Uruguay	Realign UN741	
Analysis/Agreement	<ul style="list-style-type: none"> • Argentina: Agrees. • Brazil: It will affect defence areas and proposes that the requested route be created and, in case of activation of the area, use would be made of UN741. Brazil intends to publish in August 2018. • Uruguay: Agrees to the initial proposal in accordance with WP/07. 	Pending coordination Brazil, Uruguay and Argentina
Date of publication	TBD	

4-29	Proposal	
Brazil * Uruguay	Realign UM671	
Analysis/Agreement	<ul style="list-style-type: none"> • Brazil: Rejects the proposal due to existing flow towards SBGR. • Uruguay: According to WP/08, it would depend on the redesign of the BAIREZ TMA. 	Proposal is rejected
Date of publication	TBD	

4-33	Proposal	
Argentina Paraguay * Uruguay	Delete UA556	
Analysis/Agreement	<ul style="list-style-type: none"> • Argentina: Proposes deletion of UA556 and creation of UMXXX from REPAM to GUA. • Paraguay: Proposes deletion of UA556 in full and creation of UMXXX. Proposes publication in April, effective June. • Uruguay: Proposes deletion of UA556 in full and creation of an RNAV route along the same path. Proposes publication in April, effective June. 	ACCEPTED Proposal to delete UA556 accepted. Two new RNAV routes will be created, one along the same path as UA556 and another between GUA and REPAM.
Date of publication	TBD	

4-34	Proposal	
Argentina Chile Paraguay Bolivia	Realign UM789	
Analysis/Agreement	<ul style="list-style-type: none"> • Argentina: Agrees. • Chile: Agrees. • Bolivia has no objection for route (without coordination required between Bolivia and Chile). • Transfer coordinates Argentina-Chile (26 06 03 S / 067 01 22 W) are proposed • Paraguay: No objection. 	ACCEPTED Proposal accepted.
Date of publication	TBD	

4-35	Proposal	
Argentina Chile	Realign UM424.	
Analysis/Agreement	<ul style="list-style-type: none"> • Argentina: Agrees. • Chile: Agrees. 	ACCEPTED Proposal accepted.
Date of publication	TBD	

4-36	Proposal	
Argentina Chile * Uruguay	Delete UA306. Realign UL405.	
Analysis/Agreement	<ul style="list-style-type: none"> • Argentina: Agrees without deleting UA306 due to flow to Mendoza. • Chile: Agrees. • * Uruguay: Agrees. 	ACCEPTED Proposal accepted without deleting UA306 and entering Argentina through SARGO.
Date of publication	TBD	

4-37	Proposal	
Argentina Chile Paraguay	Realign UL531.	
Analysis/Agreement	<ul style="list-style-type: none"> • Argentina: Agrees. • Chile: Agrees. • Paraguay: Rejects the proposal due to conflict in position REPAM. 	Proposal is rejected
Date of publication	TBD	

4-38	Proposal	
Argentina Chile	Realign UL650.	
Analysis/Agreement	<ul style="list-style-type: none"> • Argentina: Agrees to realign up to LAR. • Chile: Agrees and proposes transfer coordinates (24 55 28 S / 069 08 46 W). 	ACCEPTED Proposal accepted up to LAR.
Date of publication	TBD	

4-43	Proposal	
Argentina Bolivia Brazil	Realign UN525.	
Analysis/Agreement	<ul style="list-style-type: none"> • Argentina: Agrees. • Bolivia: Requests to reject the proposal due to lack of traffic. • Brazil: Agrees. 	Proposal is rejected
Date of publication	TBD	

4-44	Proposal	
Argentina Bolivia Brazil Paraguay	Realign UM657.	
Analysis/Agreement	<ul style="list-style-type: none"> • Proposal to extend UM657 in segment ASU – DOKBA – EDMAR. • Argentina: Agrees. • Bolivia: Agrees. • Brazil: Rejects realignment, but agrees with route extension. Publication proposed in April, effective June. • Paraguay: Agrees. 	<p>ACCEPTED</p> <p>Agreement on extending UM657 only in segment ASU - DOKBA - EDMAR</p>
Date of publication	TBD	

4-55	Proposal:	
Argentina Chile	Delete UB560.	
Analysis/Agreement	<ul style="list-style-type: none"> • Argentina: Agrees. • Chile: Agrees with the proposal of Argentina and requests to maintain B560. 	<p>ACCEPTED</p> <p>Proposal accepted, noting that lower route B560 is NOT TO BE DELETED.</p>
Date of publication	TBD	

4-61	Proposal:	
Argentina Chile	Delete UB684. Extend UM783.	
Analysis/Agreement	<ul style="list-style-type: none"> • Argentina: Agrees to extend UM783 but not to delete UB684. • Chile: Agrees with the proposal of Argentina. 	<p>ACCEPTED</p> <p>Agreement on extending UM783; NOT TO DELETE UB684.</p>
Date of publication	TBD	

4-65	Proposal:	
Argentina Chile	Delete UA307.	
Analysis/Agreement	<ul style="list-style-type: none"> Argentina: Proposal is rejected because it is being used, starting in NEBEG. Chile: Agrees with the proposal of Argentina. 	Proposal is rejected
Date of publication	TBD	

4-78	Proposal:	
Argentina Chile	Delete UA570. Extend UN857.	
Analysis/Agreement	<ul style="list-style-type: none"> Argentina: Agrees with the proposal of Chile. Chile: Proposes that it be rejected due to traffic to Rio Gallegos and Malvinas Islands. If the proposal is accepted, the separation with the existing route would be too small, reason why the proposal is rejected. 	Proposal is rejected
Date of publication	TBD	

4-79	Proposal:	
Brazil * Uruguay	Realign UM661	
Analysis/Agreement	<ul style="list-style-type: none"> Brazil: Agrees and proposes publication in August 2018, effective October. Uruguay: Agrees in accordance with WP/07, with publication in August 2018. 	ACCEPTED Proposal is accepted
Date of publication	TBD	

4-82	Proposal:	
Argentina Paraguay	Delete UB687.	
Analysis/Agreement	<ul style="list-style-type: none"> Argentina: Rejects the proposal due to traffic on the airway without communication with Asunción. Paraguay: Agrees with the position of Argentina. 	Proposal is rejected
Date of publication	TBD	

4-83	Proposal:	
Argentina Brazil Paraguay	Delete UB688.	
Analysis/Agreement	<ul style="list-style-type: none"> Argentina: Proposal is rejected due to conventional flights. Brazil: Agrees with the proposal. Paraguay: Rejects the proposal because the route is currently used, and proposes the creation of a new RNAV route UMXXX along the same path. Proposes to publish in April, effective June. 	ACCEPTED Proposal to delete UB688 is rejected. The creation of an RNAV route along the same path is accepted.
Date of publication	TBD	

4-85	Proposal:	
Venezuela Brasil	Realign route UL216 SAN FERNANDO DE APURE to FOZ.	
Analysis/Agreement	<ul style="list-style-type: none"> <u>New proposal</u> to realign UL216 from ARMUK to PAY VOR. So as not to lose connectivity, UL309 is realigned from RCO VOR to new Amazonico FIR-Maiquetía FIR boundary on UL216. Brazil agrees. Venezuela agrees. 	ACCEPTED Proposal accepted as modified
Date of publication		

4-89	Proposal:	
Argentina Bolivia Brazil, Paraguay	New route UMXXX.	
Analysis/Agreement	<ul style="list-style-type: none"> • Argentina: Rejects the proposal due to lack of VHF and surveillance because of terrain. • Bolivia: Proposal is rejected due to lack of communications. • Brazil: Agrees. • Paraguay: Proposal is rejected because of the number of crossings and potential traffic conflicts. 	Proposal is rejected
Date of publication	TBD	

4-91	Proposal:	
Bolivia Paraguay	Realign UM548.	
Analysis/Agreement	<ul style="list-style-type: none"> • Bolivia: Rejects the proposal due to traffic conflicts • Paraguay: Agrees with Bolivia. 	Proposal is rejected
Date of publication	TBD	

4-92	Proposal submitted by Guyana during the Meeting:	
Venezuela Guyana Brazil	New route UXXX SIDAM – MOMSO, involving the Maiquetia, Georgetown, Amazonica FIRs.	
Analysis/Agreement	<ul style="list-style-type: none"> • Venezuela; Agrees with the initiative, which starts in SIDAM in the Maiquetia FIR. • Guyana: Agrees. • Brazil: Agrees with the route. 	ACCEPTED
Date of publication	TBD	

PART II

SUMMARY OF THE PACIFIC GROUP

- **Participating States present:**
 - **Brazil**
 - **Bolivia**
 - **Chile**
 - **Ecuador**
 - **Guyana**
 - **Jamaica**
 - **Panama**
 - **Peru**
 - **Venezuela**

NOTE.- The initiative is accepted in part or in full, as justified in the text contained in the analysis/agreement section.

4-04	Proposal:	
Panama Colombia Curacao	Delete route UA319 TABOGA (TBG) – BETIR Create bidirectional RNAV route between TABOGA (TBG) - AGUJA - OROSA, maintaining the previous path Coordinate with the CAR Region the creation of RNAV route in segment OROSA - PALAS	
Analysis/Agreement	<ul style="list-style-type: none"> Pending coordination among Panama-Colombia-Curacao (CAR Region) 	Pending coordination among Panama, Colombia, and Curacao
Date of publication	TBD	

4-05	Proposal:	
COCESNA Panama Colombia Peru Brazil Bolivia Paraguay	Delete route UA321 in segment DANUL - PELRA - SAN ANDRÉS (SPP) – TABOGA (TBG) – BUSMO (CAR/SAM). Extend route UN420 (towards the north) from BUSMO to SAN ANDRÉS (SPP). Extend route UL333 (towards the south) from DANUL - PELRA - SAN ANDRES (SPP) maintaining the same path as UA321. Realign route UN420 from BUSMO – CALI (CLO) – ROLUS – RIO BRANCO (RCO) – OBLUM - ASUNCIÓN (VAS). Delete route UW90 in segment BUSMO - CALI (CLO) due to overlap with realignment of UN420.	
Analysis/Agreement	<ul style="list-style-type: none"> Pending coordination with the CAR Region segment SAN ANDRÉS (SPP) – PISAD. Pending coordination with Colombia segment BUSMO – ROLUS. Peru and Brazil accept the proposal ROLUS – RIO BRANCO (RCO). Coordination with Colombia is required, because a route segment will cross in parallel track between FIR LIMA – BOGOTA (near ILMUX). Bolivia rejects initiative, and maintains the current path of route UN420 RIO BRANCO (RCO) – VIRU VIRU (VIR) – MOMDI. Paraguay rejects initiative, and maintains same path of route UN420 VIRU VIRU (VIR) – ASUNCIÓN (VAS). 	Pending coordination with the CAR Region and Colombia
Date of publication	TBD	

4-06	Proposal:	
Panama Colombia Brazil	Delete route UA323 from TABOGA (TBG) to MANAUS (MNS). Extend (bidirectional) route UL423 from AMBALEMA (ABL) - ANPIX - LUVMA - SIGEP - KOKBO - RECIFE (REC). Segment TABOGA (TBG) - ANPIX currently covered by route UM459.	
Analysis/Agreement	<ul style="list-style-type: none"> Route UL423 in segment Bogota FIR ILTUR - PUKAM without change. Pending coordination with Colombia segment PUKAM - ANPIX - LIM FIR - LUVMA. Brazil accepts the proposal and will create domestic route MANAUS (MNS) - SAO GABRIEL (SGC). 	Pending coordination with Colombia
Date of publication	TBD	

4-07	Proposal:	
Ecuador Colombia Venezuela Trinidad and Tobago	Delete route UA550 between POINTE A PITRE (PPR) and BIVAN. Create RNAV route between POINTE A PITRE (PPR) and BIVAN. Venezuela will create a domestic route if necessary. Delete route UQ104 in segment KIKAS- BOKAN and create waypoint with route UQ103 (BOGOTA FIR).	
Analysis/Agreement	<ul style="list-style-type: none"> Ecuador maintains conventional route UA550 segment QUITO (QIT) - BIVAN - BOKAN. Pending coordination with Colombia RNAV segment BOKAN - LOBUL - KIKAS. Pending coordination with Colombia segment of conventional route UA550 to be deleted BOKAN - GIRARDOT (GIR) - BOGOTA (BOG) (flights Quito - Bogota). Venezuela accepts proposal for RNAV route PUERTO CABELLO (PBL) - EDGEL - BOGSI - POINTE A PITRE (PPR). Route UG432 connects EDGEL - MAIQUETIA (MIQ). Venezuela maintains conventional route UA550 PUERTO CABELLO (PBL) - KIKAS. Pending coordination with Trinidad and Tobago (CAR Region). 	Pending coordination Colombia Trinidad and Tobago
Date of publication	TBD	

4-08	Proposal:	
Panama Colombia Venezuela Trinidad and Tobago	Delete route UA552 between SAN ANDRÉS (SPP) – BARRANQUILLA (BAQ) – MAIQUETIA (MIQ) - PIARCO (POS). Create (bidirectional) RNAV route SAN ANDRES (SPP) – PIARCO (POS) with enhanced path. Coordinate with the CAR Region extension from SAN ANDRES (SPP) to KITIS.	
Analysis/Agreement	<ul style="list-style-type: none"> • Pending coordination with CAR Region segment KITIS – SAN ANDRÉS (SPP). • Panama accepts implementation of RNAV route segment SAN ANDRÉS (SPP) – ALPON. • Pending coordination with Colombia segment ALPON – ORTIZ. • Venezuela maintains conventional route UA552 segment ORTIZ – MEGIR. • Segment MEGIR – PIARCO (POS) not affected (PIARCO FIR). 	Pending coordination CAR Region and Colombia
Date of publication	TBD	

4-09	Proposal:	
Colombia Venezuela Curaçao Dominican Republic	Delete route UA567 segment NOREX – MENE MAUROA (MAU) - ENPUT. Extend route UL342 from ENPUT – PUERTO LEGUIZAMO (PLG) – TARAPOTO (TAP) – ILROL. Delete route UQ103 (BOGOTA FIR). Delete route UT228 (LIMA FIR).	
Analysis/Agreement	<ul style="list-style-type: none"> • Segment NOREX - MENE MAUROA (MAU) - ENPUT is currently deleted. • UL342 is currently implemented from PUNTA CANA (PNA) – KARUM – CHAVE – ENPUT. • Pending coordination with Colombia segment ENPUT – PUERTO LEGUIZAMO (PLG) and deletion of route UQ103. • Peru accepts the proposal. 	Pending coordination with Colombia
Date of publication	TBD	

4-10	Proposal:	
Panama Colombia Venezuela Curaçao	Delete route UA574 segment ARUBA (ABA) - TABOGA (TBG). Create RNAV route between ARUBA (ABA) – TABOGA (TBG).	
Analysis/Agreement	<ul style="list-style-type: none"> Proposal does not affect segment ARUBA (ABA) – DATOR. Venezuela accepts the proposal. Pending coordination with Colombia segment DATOR – FIR boundary and creation of connecting route (STAR) to SANTA MARTA (STA), BARRANQUILLA (BAQ) and CARTAGENA (CTG). Panama accepts the proposal. 	Pending coordination with Colombia
Date of publication	TBD	

4-15	Proposal:	
Curaçao Venezuela	Delete route UG431 segment SCAPA – ALCOT – ENPUT. Create (bidirectional) RNAV route SCAPA - ALCOT – ENPUT.	
Analysis/Agreement	<ul style="list-style-type: none"> Venezuela accepts the proposal. Pending coordination with Curaçao (CAR Region) segment ALCOT - SCAPA. 	Pending coordination with CAR Region
Date of publication	TBD	

4-17	Proposal:	
Panama Jamaica Cuba	Delete route UG437 segment CIEGO DE AVILA (UCA) – GONIS – DUXUN – TABOGA (TBG). Route UL780 currently exists, connecting segment PIGBO – TABOGA (TBG). Coordinate with the CAR Region the establishment of a connection between PIGBO and CIEGO DE AVILA (UCA).	
Analysis/Agreement	<ul style="list-style-type: none"> Panama accepts the proposal. Jamaica accepts the proposal. Pending coordination with Cuba for establishment of segment PIGBO – CIEGO DE AVILA (UCA). 	Pending coordination with Cuba
Date of publication	TBD	

4-18	Proposal:	
Curaçao Colombia Ecuador	Delete route UG438 segment QUITO (QIT) – CALI (CLO) - CARTAGENA (CTG). Create RNAV route segment BARRANQUILLA (BAQ) – BUTAL – BOKAN. Create RNAV route segment PALAS – RIO NEGRO (RNG) - MERCADERES (MER) – BOKAN. Create domestic route, if necessary, between CALI (CLO) – CARTAGENA (CTG) (Bogota FIR and BARRANQUILLA).	
Analysis/Agreement	<ul style="list-style-type: none"> Ecuador accepts the proposal. Pending coordination with Colombia. Pending coordination with Curacao (CAR Region) segment PALAS – FIR boundary. 	Pending coordination Colombia and Curacao
Date of publication	TBD	

4-19	Proposal:	
Ecuador	Delete route UG439 segment MOXAS - QUITO (QIT) Segment served by UL318.	
Analysis/Agreement	<ul style="list-style-type: none"> Ecuador notes that route UG439 is currently deleted. 	ACCEPTED
Date of publication	N/A	

4-20	Proposal:	
Curaçao Venezuela	Delete route UG442 segment AMBIN – ARUBA (ABA) – ALCOT – VUNUM – MAIQUETIA (MIQ) (pending deletion of segment AMBIN – MANLEY). Create RNAV route segment AMBIN – ARUBA (ABA) – ALCOT – VUNUM – MAIQUETIA (MIQ) (pending creation of RNAV segment AMBIN – MANLEY).	
Analysis/Agreement	<ul style="list-style-type: none"> Venezuela accepts the proposal. Pending coordination with CAR Region segment ALCOT – ARUBA – AMBIN (pending proposal for segment AMBIN – MANLEY). 	Pending coordination with the CAR Region
Date of publication	TBD	

4-21	Proposal:	
Curaçao Colombia	Delete route UG444 segment LIDOL – PUERTO LEGUIZAMO. Create RNAV route segment LIDOL – BARRANCABERMEJA (EJA) – LOBUL - PUERTO LEGUIZAMO (PLG).	
Analysis/Agreement	<ul style="list-style-type: none"> Does not involve the Maiquetia FIR. Pending coordination with CAR Region segment LIDOL – FIR LIM – BARRANCABERMEJA (EJA). Pending coordination with Colombia. 	Pending coordination CAR Region and Colombia
Date of publication	TBD	

4-22	Proposal:	
Curaçao Venezuela	Delete route UG446 segment CURAZAO (PJG) – PUERTO CABELLO (PBL). Create RNAV route segment CURAZAO (PJG) – PUERTO CABELLO (PBL).	
Analysis/Agreement	<ul style="list-style-type: none"> Route UL339 currently implemented segment REPIS – VUNUM – PUERTO CABELLO (PBL) in replacement of route UG446. Pending coordination with CURACAO for the creation of segment REPIS – CURACAO (PJG). 	Pending coordination with Curacao
Date of publication	TBD	

4-23	Proposal:	
Panama Colombia	Delete route UG447 segment BOGOTÁ (BOG) – SAN ANDRÉS (SPP). Create RNAV route segment SAN ANDRÉS (SPP) – ARORO – VASIL. Delete domestic route UQ112 segment ARORO – VASIL.	
Analysis/Agreement	<ul style="list-style-type: none"> Panama accepts the proposal SAN ANDRÉS (SPP) – ARORO. Pending coordination with Colombia segment ARORO – VASIL and delete route UQ112. 	Pending coordination with Colombia
Date of publication	TBD	

4-24	Proposal:	
Panama Colombia	Delete route UB689 segment SAN ANDRÉS (SPP) – LETICIA (LET). Create RNAV route segment SAN ANDRÉS (SPP) – RIO NEGRO (RNG) – MARIQUITA (MQU) – SOACHA (SOA) – MARTU. Delete domestic route UQ111 segment SOACHA (SOA) – PABON.	
Analysis/Agreement	<ul style="list-style-type: none"> • Panama accepts the proposal SAN ANDRÉS (SPP) – LIM FIR • Pending coordination with Colombia segment LIM FIR – MARTU and delete route UQ112 	Pending coordination with Colombia
Date of publication	TBD	

4-30	Proposal:	
Peru Chile Brazil	Realign route UL300 segment IQUITOS (IQT) – URCOS (URC) – GAVAR – IRULI.	
Analysis/Agreement	<ul style="list-style-type: none"> • Peru accepts the proposal. • Chile will assess if restricted area is affected. • Brazil accepts the proposal. 	Pending coordination of Chile
Date of publication	TBD	

4-31	Proposal:	
Ecuador Peru	Realign route UM665 segment EVRED – IQUITOS (IQT).	
Analysis/Agreement	<ul style="list-style-type: none"> • Ecuador accepts the proposal. • Peru accepts the proposal. • Pending creation of FIR boundary. 	ACCEPTED
Date of publication	TBD	

4-39	Proposal:	
Colombia Ecuador	Delete route UR564 segment GIRARDOT (GIR) – ANGEL - ESMERALDAS (ESV). Create RNAV route GIRARDOT (GIR) – ESMERALDAS (ESV).	
Analysis/Agreement	<ul style="list-style-type: none"> Ecuador accepts the proposal. Pending coordination with Colombia segment FIR boundary – GIRARDOT (GIR). 	Pending coordination with Colombia
Date of publication	TBD	

4-40	Proposal:	
Peru Colombia Brazil	Delete route UA566 segment IQUITOS (IQT) – LETICIA (LET) – TEFE (TFE) – MANAUS (MNS). Extend route UM665 segment IQUITOS (IQT) – (AROTI) - TEFE (TFE) – MANAUS (MNS).	
Analysis/Agreement	<ul style="list-style-type: none"> Brazil accepts the proposal. Pending coordination with Colombia LETICIA (LET). Alternate proposal IQUITOS (IQT) – MEXAS – TEFE (TFE) - MANAUS (MNS). 	Pending coordination with Colombia
Date of publication	TBD	

4-41	Proposal:	
COCESNA Ecuador	Delete route UZ30 segment DORLA – GUAYAQUIL (GYV). Realign route UL203 segment LIXAS – MANTA (MNV) – GUAYAQUIL (GYV). Extend route UL207 segment DORLA – ARNEL.	
Analysis/Agreement	<ul style="list-style-type: none"> Ecuador accepts the proposal. Pending creation of waypoints intersection UL207, UL318 and UL203. 	ACCEPTED Pending coordination with the CAR Region
Date of publication	TBD	

4-45	Proposal:	
Trinidad and Tobago Guyana Suriname French Guiana Brazil	Delete route UG449 segment ANADA – PIARCO (POS) – BELEM (BEL). Create RNAV route segment ANADA – KAISO – VILAS – OTONI – BELEM (BEL).	
Analysis/Agreement	<ul style="list-style-type: none"> • Brazil accepts the proposal segment OTONI – BELEM (BEL). • Guyana maintains conventional route within the Georgetown FIR. • Pending coordination with PIARCO, CAYENNE and PARAMARIBO segment RNAV ANADA – OTONI. 	Pending coordination PIARCO , PARAMARIBO AND CAYENNE
Date of publication	TBD	

4-46	Proposal:	
Peru Chile	Extend route UL305 segment AMVEX – PISCO (SCO) - VENTANAS (VTN).	
Analysis/Agreement	<ul style="list-style-type: none"> • Peru and Chile will assess fleet capacity with a view to implementing a new navigation specification. 	Pending coordination with Peru Chile
Date of publication	TBD	

4-47	Proposal:	
Peru Chile	Delete route UM674 segment ATATU – LIM. Realign route UM674 segment ATATU - VENTANAS (VTN).	
Analysis/Agreement	<ul style="list-style-type: none"> • Peru and Chile will assess fleet capacity with a view to implementing a new navigation specification. 	Pending coordination with Peru Chile
Date of publication	TBD	

4-48	Proposal:	
French Guiana	Delete route UN674 segment BUXEX – REKIM – ST. GEORGES (GOP) Create domestic route BUXEX – ST. GEORGES (GOP).	
Analysis/Agreement	<ul style="list-style-type: none"> Pending coordination due to absence of representative of French Guiana. 	Pending coordination with French Guiana
Date of publication	TBD	

4-49	Proposal:	
Bolivia Peru	Delete route UA304 segment LIMA (LIM) – VIRU VIRU (VIR) – CAMPO GRANDE (GRD)	
Analysis/Agreement	<ul style="list-style-type: none"> Bolivia accepts the proposal and will create domestic route. Peru accepts the proposal. Segment ANDAHUAYLAS (AND) – JULIACA (JUL) will be covered by domestic route. NOTE – CAR SAM eANP VOL II still includes segment VOR CUB – VOR GRD. Amendment is required 	ACCEPTED
Date of publication	TBD	

4-50	Proposal:	
French Guiana	Delete route UN662 segment MIKOK – TEKAD.	
Analysis/Agreement	<ul style="list-style-type: none"> Pending coordination due to absence of representative of French Guiana. 	Pending coordination with French Guiana
Date of publication	TBD	

4-51	Proposal:	
Trinidad and Tobago French Guiana Suriname Brazil	Delete route UA555 segment ADAMS (BGI) – BELEM (BEL). Extend and realign route UM786 segment ADAMS (BGI) – MILUX – GEDAX – BELEM (BEL). Delete route UM786 segment KALEP – CAYENNE FELIX EBOUE (CYR).	
Analysis/Agreement	<ul style="list-style-type: none"> • Brazil accepts the proposal. • Pending coordination with the CAR Region. • Pending coordination with Guyana regarding traffic to Belem. 	Pending coordination with the CAR Region
Date of publication	TBD	

4-53	Proposal:	
Bolivia Peru	Delete route UA573 segment ILO (ILO) – ORALO – LA PAZ (PAZ). Create RNAV route segment ILO (ILO) – ARSUN – COCHABAMBA (CBB).	
Analysis/Agreement	<ul style="list-style-type: none"> • Bolivia proposes ILO – ARSUN – IROBO – TEREPE – COCHABAMBA (CBB). • Chile accepts the proposal. • Peru accepts the proposal. 	ACCEPTED
Date of publication	TBD	

4-54	Proposal:	
Venezuela Puerto Rico	Delete route UA300 segment GUAYANA (GNA) – KIKER. Extend route UM423 segment GUAYANA (GNA) – KIKER. Coordinate with the CAR Region to extend segment KIKER – LENNT.	
Analysis/Agreement	<ul style="list-style-type: none"> • Venezuela accepts the proposal. • Pending coordination with CAR Region. 	Pending coordination with the CAR Region
Date of publication	TBD	

4-56	Proposal:	
French Guiana Suriname Brazil Peru	Realign route UL306 segment CAYENNE FELIX EBOUE (CYR) – ACARI – ISOSU – EKURU – VADOS.	
Analysis/Agreement	<ul style="list-style-type: none"> • Brazil accepts the proposal. • Peru accepts the proposal. • Pending coordination with Suriname and French Guiana. 	Pending coordination with French Guiana and Suriname
Date of publication	TBD	

4-57	Proposal:	
Guyana Brazil	Delete route UB681 segment TIMEHRI GEORGETOWN (TIM) – BOA VISTA (BVI). Create RNAV route segment TIMEHRI GEORGETOWN (TIM) – FELIX.	
Analysis/Agreement	<ul style="list-style-type: none"> • Guyana maintains conventional route UB681 de TIMEHRI GEORGETOWN (TIM) – to BOA VISTA (BVI). 	The proposal is rejected
Date of publication	N/A	

4-58	Proposal:	
Venezuela Guyana *Suriname *French Guiana	Delete route UG443 segment CABO CODERA (CBC) – CAYENNE FELIX EBOUE (CYR). Create RNAV route segment CABO CODERA (CBC) – UTGIN – GEDAX - CAYENNE FELIX EBOUE (CYR).	
Analysis/Agreement	<ul style="list-style-type: none"> • Guyana maintains conventional route UG443 segment TIMEHRI GEORGETOWN (TIM) – MONIK - CAYENNE FELIX EBOUE (CYR). • Venezuela accepts to implement RNAV route UXXX segment TIMEHRI GEORGETOWN (TIM) – CABO CODERA (BCB). 	ACCEPTED
Date of publication	TBD	

4-59	Proposal:	
Trinidad and Tobago Venezuela Guyana	Delete route UA324 segment PIARCO (POS) – TIMEHRI GEORGETOWN (TIM). Extend route UL322 segment TIMEHRI GEORGETOWN (TIM) – MINDA – PIARCO (POS). Coordinate with the CAR Region extension to ST. MARTEEN.	
Analysis/Agreement	<ul style="list-style-type: none"> • Proposal does not affect Venezuela. • Guyana maintains route UA324. • Pending coordination with the CAR Region regarding extension to St. Marteen from PIARCO (POS). 	Pending coordination with the CAR Region
Date of publication	TBD	

4-60	Proposal:	
Trinidad and Tobago Venezuela	Delete route UA561 segment MAURICE BISHOP (GND) – MARGARITA (MTA). Create RNAV route segment MAURICE BISHOP (GND) – MARGARITA (MTA).	
Analysis/Agreement	<ul style="list-style-type: none"> • Venezuela accepts the proposal. • Pending coordination with the CAR Region. 	Pending coordination with the CAR Region
Date of publication	TBD	

4-62	Proposal:	
Ecuador Peru Brazil	Delete route UM530 segment GUAYAQUIL (GYV) – BRAZILIA (BSI). Brazil will create domestic route RIO BRANCO (RCO) – BRAZILIA (BSI).	
Analysis/Agreement	<ul style="list-style-type: none"> • Ecuador accepts the proposal. • Peru accepts the proposal. • Brazil accepts the proposal. 	ACCEPTED
Date of publication	TBD	

4-63	Proposal:	
Colombia Brazil	Realign route UM549 segment ANPIX – DADKA – MITU (MTU) – ABIDE. Delete route UM459 segment GAXES – VAKOB – MANSI – ITABI – VUBOM. Delete route UQ108.	
Analysis/Agreement	<ul style="list-style-type: none"> • Pending coordination with Colombia. • Brazil accepts the proposal. 	Pending coordination with Colombia
Date of publication	TBD	

4-64	Proposal:	
Colombia Brazil	Extend and realign route UL201 segment LONAX – MIGOB – MABMA – HASTE.	
Analysis/Agreement	<ul style="list-style-type: none"> • Pending coordination with Colombia. • Brazil accepts the proposal segment LONAX – MIGOB – MABMA. 	Pending coordination with Colombia
Date of publication	TBD	

4-66	Proposal:	
Curacao Venezuela	Delete route UA315 segment MAIQUETIA (MIQ) – CURAZAO (PJG). Extend route UM417 MAIQUETIA (MIQ) – ONDAS.	
Analysis/Agreement	<ul style="list-style-type: none"> • Venezuela accepts the proposal. • Venezuela will consult with Curacao the extension of route UM417 to GREAT INAGUA. 	Pending coordination with the CAR Region
Date of publication	TBD	

4-67	Proposal:	
COCESNA Panama	Delete route UA317 segment MANAGUA (MGA) – TABOGA (TBG). Extend route UP790 segment TABOGA (TBG) – MANAGUA (MGA).	
Analysis/Agreement	<ul style="list-style-type: none"> Extend UP790 segment TABOGA (TBG) – MANAGUA (MGA). Pending coordination with the CAR Region segment TABOGA (TBG) – MANAGUA (MGA). 	Pending coordination with the CAR Region COCESNA
Date of publication	TBD	

4-69	Proposal:	
Panama COCESNA	Delete route UA502 segment TABOGA (TBG) – COTOS. Create domestic route within the Panama FIR if necessary.	
Analysis/Agreement	<ul style="list-style-type: none"> Pending coordination with Panama. Pending coordination with the CAR Region. 	Pending coordination with the CAR Region
Date of publication	TBD	

4-70	Proposal:	
Venezuela Trinidad and Tobago	Delete route UA511 segment VODIN – ADAMS (BGI). Extend route UM791 segment DOLRO - ADAMS (BGI) – VODIN.	
Analysis/Agreement	<ul style="list-style-type: none"> Venezuela accepts the proposal. Pending coordination with PIARCO (CAR Region). 	Pending coordination with the CAR Region
Date of publication	TBD	

4-71	Proposal:	
Colombia Peru Brazil Bolivia Argentina	Extend and realign route UM784 segment BUSMO – PUERTO LEGUIZAMO (PLG) – LIMPO – DOPGO – VINOS – SASKU – CARRASCO (CRR).	
Analysis/Agreement	<ul style="list-style-type: none"> • Reformulated proposal of Peru: Entry to the Lima FIR through ROLUS DCT KILEV. • Brazil accepts the proposal of Peru. • Bolivia: FIR La Paz is not affected. • Requires coordination with Colombia 	Pending coordination with Colombia
Date of publication	TBD	

4-72	Proposal:	
Venezuela Trinidad and Tobago	Delete UA551 from MARTINIQUE to MAIQUETIA. Add RNAV route from MARTINIQUE to MAIQUETIA.	
Analysis/Agreement	<ul style="list-style-type: none"> • Venezuela accepts the proposal. • Pending coordination with PIARCO. 	Pending coordination with PIARCO
Date of publication	TBD	

4-73	Proposal:	
Venezuela	Delete UG432 from ARMUR to MAIQUETIA. Add new RNAV route segment MAIQUETIA (MIQ) – ARMUR.	
Analysis/Agreement	<ul style="list-style-type: none"> • Venezuela accepts the proposal. 	ACCEPTED
Date of publication	TBD	

4-74	Proposal:	
Panama Colombia Venezuela	Delete UA553 from PUERTO CABELLO (PBL) to TABOGA (TBG). Create RNAV route segment PBL – TBG.	
Analysis/Agreement	<ul style="list-style-type: none"> • Venezuela accepts the proposal. • Panama accepts the proposal. • Pending coordination with Colombia. 	Pending coordination with Colombia
Date of publication	TBD	

4-75	Proposal:	
Trinidad and Tobago Venezuela	Realign route UM662 segment EGOSU - MAURICE BISHOP (GND).	
Analysis/Agreement	<ul style="list-style-type: none"> • Venezuela accepts the proposal. • Pending coordination with PIARCO. 	Pending coordination with PIARCO
Date of publication	TBD	

4-76	Proposal:	
Colombia Peru Brazil Bolivia Ecuador	Delete route UM776 segment POSKA – ASOLA –LA PAZ – UYUNI – UBSAS – JUJUY (JUJ). Create RNAV route segment BUSMO – PULTU – ELAKO – MUDUL – VAPES – ROSARIO (ROS).	
Analysis/Agreement	<ul style="list-style-type: none"> • Peru does not accept the proposal PULTU – ELAKO – A/KOMPA. • Brazil accepts the proposal. • Bolivia accepts the proposal. • Ecuador does not accept. 	The proposal is rejected
Date of publication	TBD	

4-77	Proposal:	
Curacao Trinidad and Tobago Venezuela	Delete route UA563 segment CURACAO (PJG) - PIARCO (POS). Create RNAV route segment CURACAO (PJG) – MEGIR. Create domestic route in Maiquetia FIR if necessary.	
Analysis/Agreement	<ul style="list-style-type: none"> • Venezuela accepts the proposal. • Does not affect the PIARCO FIR in segment PIARCO (POS) – MEGIR. • Pending coordination with Curaçao. 	Pending coordination with Curacao
Date of publication	TBD	

4-80	Proposal:	
Guyana Barbados Antigua and Barbuda	Delete route UA632 segment V.C. BIRD – TASAR – ADAMS - TIMEHRI GEORGETOWN (TIM). Create RNAV route maintaining the same path.	
Analysis/Agreement	<ul style="list-style-type: none"> • Guyana accepts the proposal. • Pending coordination with the CAR Region. 	Pending coordination with the CAR Region
Date of publication	TBD	

4-81	Proposal:	
Costa Rica Colombia Panama	Delete route UB690. Extend route UM796 segment PUERTO LIMÓN (LIO) – EL COCO (TIO). Create RNAV route segment SAN ANDRES (SPP) – PUERTO LIMON (LIO).	
Analysis/Agreement	<ul style="list-style-type: none"> • Pending coordination with the CAR Region. • Pending coordination with Colombia. 	Pending coordination with the CAR Region and Colombia
Date of publication	TBD	

4-84	Proposal:	
Guyana Brazil Bolivia Argentina Chile	Realign route UL322 from TIMEHRI GEORGETOWN (TIM) to ASIMO.	
Analysis/Agreement	<ul style="list-style-type: none"> Bolivia rejected the proposal in analysis of the Atlantic Group. The extension of route UL322 is accepted as coordinated between KLM and Guyana for segment TIMEHRI GEORGETOWN (TIM) and point 0855N 05730W on the northern boundary of the Georgetown FIR. 	<p>The original proposal is rejected.</p> <p>GUYANA ACCEPTS KLM's initiative for new segment of UL322 northeast of TIM VOR</p>
Date of publication	TBD	

4-86	Proposal:	
Mexico Belize Panama Costa Rica	Extend route UM549 segment TABOGA (TBG) – BONITO (BTO).	
Analysis/Agreement	<ul style="list-style-type: none"> Coordination pending between Panama and CENAMER. 	<p>Pending coordination between Panama and CENAMER</p>
Date of publication	TBD	

4-87	Proposal:	
Colombia	Create RNAV route segment UGUPI – OROSA.	
Analysis/Agreement	<ul style="list-style-type: none"> KLM proposes the following change: TUMACO (TCO) - ANRON – SATMI. Improved connectivity from Guayaquil with northern airways. Pending coordination with Colombia. 	<p>Pending coordination with Colombia</p>
Date of publication	TBD	

4- 88	Proposal:	
Venezuela Brazil Colombia Peru	Add RNAV route segment CANAIMA (CMA) – LETICIA (LET) - LIMA (LIM).	
Analysis/Agreement	<ul style="list-style-type: none"> • The original proposal is modified. In coordination with KLM/Air France, the following points are agreed: PUL - PABON - LOGIR - WPT 092439N 0603831W (Maiquetia FIR/Piarco FIR). • Venezuela accepts the proposal. • Brazil accepts the proposal. • Pending coordination with Colombia. • Pending coordination with PIARCO. 	ORIGINAL INITIATIVE MODIFIED. Pending coordination with Colombia and PIARCO.
Date of publication	TBD	

4-90	Proposal:	
Venezuela Curacao	Delete UA554 from POKAK to MIQ. Extend route UL216 from MIQ to POKAK direct.	
Analysis/Agreement	<ul style="list-style-type: none"> • Pending coordination with CAR. • Venezuela does not accept the proposal. 	The proposal is rejected
Date of publication	TBD	

4-94	New initiative (KLM)	
Colombia Peru Venezuela	Establish RNAV route segment EGOSU - PUERTO AYACUCHO - ILMUX - RONSO LODIN – ILROL. Delete route UQ118 (Bogota FIR).	
Analysis/Agreement	<ul style="list-style-type: none"> • Venezuela accepts the proposal. • Pending coordination with Colombia. • Peru accepts ILMUX RONSO UT311 in the Lima FIR. 	NEW INITIATIVE Pending coordination with Colombia
Date of publication	TBD	

4-95	New initiative	
Guyana Venezuela Colombia Panama	Establish RNAV route between Georgetown and Panama City, with estimated trajectory VOR TIM, TELUR, CUC, KAKOL, VOR TBG. Estimated distance saved 50 NM.	
Analysis/Agreement	<ul style="list-style-type: none"> • Venezuela: Will analyze initiative concerning airspaces and trajectory. • Panama: Pending coordination with Colombia, FIR Barranquilla. • Colombia: Pending coordination. • Guyana: Agreed. 	<p>NEW INITIATIVE</p> <p>Pending coordination among Guyana, Venezuela, Colombia, Panama</p>
Date of publication	TBD	

PART III

SUMMARY OF THE CAR-SAM HARMONISATION GROUP

- **Participating States present:**
 - **Jamaica**
 - **Panama**
 - **Peru**

NOTE.- The initiative is accepted in part or in full, as justified in the text contained in the analysis/agreement section.

4-01	Proposal: Delete route UA301 in segment OTAMO-MANLEY Replace this segment as an extension of UL542, and realign between BARRANQUILLA and RIO BRANCO.	
Jamaica *Colombia Brazil	Delete route UA301 in segment OTAMO-MANLEY. Replace this segment as an extension of UL542 and realign between BARRANQUILLA and RIO BRANCO.	
Analysis/Agreement	<ul style="list-style-type: none"> • Jamaica agrees. • Jamaica realigns UL417 from MANLEY to BEMOL to be consistent with information published by Cuba. • Brazil agrees. 	<p style="text-align: center;">ACCEPTED</p> <p>Proposal accepted in segment OTAMO - MANLEY. Realignment starting in Barranquilla pending opinion of Colombia. Need to coordinate with NACC.</p>
Date of publication	TBD upon acceptance by Colombia	

4-11	Proposal:	
Jamaica Panama	Delete UB510 between SIA and TBG. Extend and realign UM795 from PML to SIA. Need to coordinate with the CAR Region.	
Analysis/Agreement	<ul style="list-style-type: none"> • Jamaica notes that Cuba has published UM795 from TANIA to NIBEO. • Jamaica proposes the modification of the proposal to realign UM795 from NIBEO to COLBY. • The proposal is to realign from COLBY to ILTUR direct without going through PML. • Panama agrees. • UB510 will be replaced with new RNAV route (4-42). 	<p style="text-align: center;">ACCEPTED</p> <p>Proposal accepted as modified. Need to coordinate with NACC.</p>
Date of publication		

4-14	Proposal:	
Jamaica *Colombia	Delete UG430 and extend UL341.	
Analysis/Agreement	<ul style="list-style-type: none"> • Jamaica proposes the creation of new RNAV route UXXXX, since UL341 has been deleted in CUBA. • Jamaica will implement a domestic route in the segment SANGSTER NIBEO. • The new route would start in URSUS. 	<p>Pending opinion of Colombia. Need to coordinate with NACC.</p>
Date of publication		

4-16	Proposal:	
Jamaica Panama	Delete the entire route UG434 from Taboga (TBG) to Manley (MLY); Coordinate with CAR the extension of regional RNAV route UL347 Manley (MLY) to TABOGA (TBG).	
Analysis/Agreement	<ul style="list-style-type: none"> • Jamaica agrees • Panama agrees 	ACCEPTED Proposal accepted. Need to coordinate with NACC.
Date of publication		

4-25	Proposal:	
Brasil Jamaica *Colombia Venezuela	Delete route UR640 from MANLEY (MLY) to MANAUS (MNS); there is an RNAV route UM409 with the same path between MARACAIBO (MAR) and VUMPI; from VUMPI there is an RNAV route UL795 that would serve flights to MANAUS (MNS). Coordinate with CAR the extension of route UM409 from MARACAIBO (MAR) to MANLEY, maintaining the same path as UR640.	
Analysis/Agreement	<ul style="list-style-type: none"> • Brasil agrees. • Jamaica agrees. • Venezuela agrees. 	Pending coordination with Colombia. Need to coordinate with NACC.
Date of publication		

4-32	Proposal:	
Jamaica Panama	Delete UL474 between MUPOV and TBG. Need to coordinate with the CAR Region.	
Analysis/Agreement	<ul style="list-style-type: none"> • Jamaica agrees. • Panama agrees. • Note.- UL474 is already deleted in Barranquilla FIR. 	ACCEPTED Proposal accepted. Need to coordinate with NACC.
Date of publication		

4-42	Proposal:	
Jamaica Panama Ecuador Colombia	<p>**NORTH OF TBG: Delete route UB510 TBG-SIA. Extend route UM542 from TBG to SIA, maintaining same path as UB510. Coordinate with CAR.</p> <p>**SOUTH OF TBG: Realign route UM542 from TABOGA (TBG) direct to an appropriate point to be created on route UT18, then direct to ARNEL. Coordinate with Ecuador the application of the FUA concept for flying over restricted area SER-4, in order to make this route more direct between TBG and ARNEL.</p>	
Analysis/Agreement	<ul style="list-style-type: none"> • NORTH TBG proposal moves to new initiative 4-96. • SOUTH TBG proposal <ul style="list-style-type: none"> ○ Ecuador pending to coordinate. ○ Colombia pending to coordinate. 	Pending coordination Colombia and Ecuador.
Date of publication		**The meeting discussed the original initiative in two parts

4-68	Proposal:	
Jamaica Panama *Colombia	<p>Delete UG448 from GCM hasta SPP, an delete route UA322 from SPP to (TIO). Add an RNAV route from GCM to TIO.</p>	
Analysis/Agreement	<ul style="list-style-type: none"> • Jamaica proposes that the new route be extended from SPP to ANRAX instead of TIO. • UA322 SPP-TIO would be maintained. • Panama accepts the proposal. 	Pending opinion of Colombia.
Date of publication		

4-93	New initiative submitted by Jamaica	
Jamaica Panama Ecuador *Colombia	Jamaica proposes the realignment of UL465 southwards, unidirectional. From FUNDI to ITATA, via LEPON and ARNAL	
Analysis/Agreement	<ul style="list-style-type: none"> • Jamaica will adapt to the new route structure. • Panama agrees, route would leave its FIR via TINPA or new point to replace it if UM542 is modified. • Ecuador notes that point ITATA no longer exists; proposes that new route be direct from TINPA to MANTA MNV, creating new point at FIR boundary with Bogota. 	Pending opinion of Colombia
Date of publication	TBD	

4-96	New initiative derived from 4-42 (NORTH TBG)	
Jamaica Panama	Delete route UB510 TBG-SIA. Add new route RNAV UXXX from SIA to TBG, maintaining same path as UB510.	
Analysis/Agreement	<ul style="list-style-type: none"> • Jamaica agrees to create new route RNAV UXXX from SIA to TBG, instead of UM542 extension. • Panama agrees. 	ACCEPTED Need to coordinate with NACC
Date of publication	TBD	

Agenda Item 4: Other business**Information in the AIP on flight levels that are inconsistent with the Tables of cruising levels**

4.1 Under this agenda item, the Meeting analysed information provided by Aerolíneas Argentinas and IATA on the use of flight levels that were inconsistent with the Tables of cruising levels, shown in Appendix 3 to Annex 2, in terms of the track, and which were tactically used by control centres (ACCs) in some route segments to avoid climbs and descents of aircraft in short distances or to avoid the confluence of traffic hindering aircraft separation.

4.2 In this regard, examples were given in route UL216, between the San Gabriel VOR and ZORRO (boundary between the Amazónica-Bogota FIRs) and in route UL793, between KUBIR and OROMU, which is a segment within the Asunción FIR.

4.3 It was noted that these level assignments were reflected in the letters of agreement (LOAs) between ACCs, which, in the SAM Region, were not always included in the AIPs. Accordingly, pilots, flight dispatchers, and navigation database agencies did not always have access to the LOAs that provided for the use of flight levels that were not consistent with the track.

4.4 A case in Peru was presented, in which section ENR 3 of the AIP publishes for route G675 a note to the users regarding the use of flight levels that are inconsistent with the Tables contained in Annex 2, in the segment PAGUR-URA VOR. States that have similar cases in route segments should follow this example.

4.5 It was concluded that the fragility of AIP information concerning the use of flight levels that are inconsistent with the Tables in Annex 2 could lead to risky conditions in the event of communication failure. Accordingly, the Meeting requested the Secretariat to submit a working paper in this regard to SAM/IG/20, and to coordinate with the AIM Officer of the Regional Office in order to submit a recommendation to reinforce the information in the AIP on the cases of route segments where, based on ATS or other agreements, the flight levels applied were not consistent with the Tables of cruising levels.