



SAM/ATS/ATFM–SAM NORTH

**INTERNATIONAL CIVIL AVIATION ORGANIZATION
South American Office**

Regional Project RLA/06/901

**Second Workshop/Meeting on optimization of ATS
coordination and Contingency Plans**

SAM/ATS/ATFM – SAM NORTH

(Lima, Peru, 24 to 28 October 2022)

REPORT

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HISTORY OF THE MEETING

ii-1 PLACE AND DURATION OF THE MEETING

The Second Workshop/Meeting on optimization of ATS coordination and SAM/ATS/ATFM Contingency Plans – SAM NORTH was held in the South American Regional Office, Lima, Peru, 24 to 28 October 2022.

ii-2 OPENING

Regional ATM/SAR Officer Fernando Hermoza, on behalf of the Regional Director of ICAO's South American Regional Office, welcomed the participants, highlighted the topics to be discussed and wished success in the deliberations. He then opened the event.

ii-3 WORKING LANGUAGES

The working languages of the Meeting were English and Spanish.

ii-4 AGENDA

The following agenda was adopted:

Agenda

Item 1: Progress of the optimization of longitudinal separation for aircraft in continental airspace. Action plan.

Agenda

Item 2: Update of letters of agreement – LOA ATS

Agenda

Item 3: Harmonize the ATS Contingency Plans (level 2) in accordance with the MCATS, based on the tasks and progress of the group of specialists GESEA

Agenda

Item 4: Coordination and signing of Agreements/understandings on ATS/ATFM/CONTIN

Agenda

Item 5: Improvements for ATFM delivery

Agenda

Item 6: Other business

ii-5 PARTICIPANTS AND ORGANIZATION

The Workshop/Meeting was attended by 7 States (Colombia, Bolivia, Brazil, Ecuador, Guyana, Peru and Venezuela), with a total of 14 participants, including the ICAO specialist. The list of participants appears on page iii-1.

Mr. Fernando Hermoza, Regional ATM/SAR Officer, acted in the Secretariat.

ii-6 RECOMENDATIONS LIST

No.	Title	Page
RECOMENDATION SAM NORTH-01	Consider studies on the text of EUROCONTROL and on parameters of Lateral separation of aircraft for LOA ATS, within the tasks of the Adhoc Group in charge of implementing CONCLUSION SAM/IG/28-01.	2-3

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APPENDIX A1

STATUS OF LONGITUDINAL SEPARATION OPTIMIZATION

(Updated in SAM SUR for Argentina, Bolivia, Brasil, Chile, Peru, Uruguay)

(Updated in SAM NORTE for Colombia, Bolivia, Brasil, Ecuador, Guyana, Peru, Venezuela)

ARGENTINA Updated SAM SUR 2022						
ACC	ACC ADJ	Longitudinal Separation				Comments
		40 NM GNSS/ DME	Implementation date	20 NM GNSS/ DME	Implementation date	
CORDOBA	IQUIQUE	YES	03/12/18			South SAM Note: Below FL 370, 10 minutes will be applied.
	LA PAZ	YES	01/01/17			
	EZEIZA			YES	13/10/2016	
	MENDOZA			YES	13/10/2016	
	RESISTENCIA			YES	13/10/2016	There are some problems with VHF COMMs
RESISTENCIA	ASUNCION	YES	01/01/17			SAM SUR Note: It is required to review the LOA ATS 2019, in which 20 NM is agreed (except PILCO), because it must be increased due to lack of VHF coverage.
	LA PAZ	YES	01/01/17			
	CORDOBA			YES	13/10/2016	
	CURITIBA	YES	01/01/17			
	EZEIZA			YES	13/10/2016	
	MONTEVIDEO	YES	01/01/17			SAM SUR Note: For review, see 20 NM separation in GEMSU, further study.
EZEIZA	COMODORO RIVADAVIA			YES	13/10/2016	
	MENDOZA			YES	13/10/2016	
	PUERTO MONTT	YES	03/12/18			
	CORDOBA			YES	13/10/2016	
	RESISTENCIA			YES	13/10/2016	
	MONTEVIDEO	YES	01/01/17	YES	2010	PAPIX, KUKEN and DORBO 20 NM SAM SOUTH Note: In UGIMI 10 NM is applied if the speed of the preceding aircraft is 20 Kt. higher
MENDOZA	EZEIZA			YES	13/10/2016	

	SANTIAGO			YES	03/12/2018	
	CORDOBA			YES	13/10/2016	
	EZEIZA			YES	13/10/2016	
COMODORO RIVADAVIA	PUNTA ARENAS	YES	03/12/18			Note SAM SOUTH: Traffic proceeding to Antarctica is excepted, to which 10 minutes applies.
	PUERTO MONTT	YES	03/12/18			

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BOLIVIA Updated SAM SUR / SAM NORTE 2022						
ACC	ACC ADJ	Longitudinal Separation				Comments
		40 NM GNSS/ DME	Implementation date	20 NM GNSS/ DME	Implementation date	
LA PAZ	AMAZÓNICO	YES	01/01/17	YES* for aircraft inbound FIR AMAZONICO	01/07/2023	Note from SAM NORTE: We worked on updating Appendix 1 Reference Table for Transfer of Responsibilities between the ACC/Amazon and the ACC/La Paz, where the minimum Longitudinal Separation of 40NM was recorded for traffics to the ACC/La Paz and *20NM for traffics to the (ACC/Amazonian at GEDUS points, EROGI, UDIDI, ILRES, ARMUK and UBKAB.
	ASUNCION	YES	01/01/17			
	CURITIBA	YES	01/07/23	YES* for aircraft inbound FIR AMAZONICO	01/07/23	Note from SAM NORTE: We worked on updating Appendix 1 Reference Table for Transfer of Responsibilities between the ACC/Curitiba and the ACC/La Paz, where the minimum Longitudinal Separation of *20NM was recorded for traffics to ACC/Curitiba and 40NM for traffics to ACC/La Paz.
	CORDOBA	YES	01/01/17			

	LIMA	YES	01/07/23			NORTH SAM Note (Updates SAM SOUTH Note): LOA ACC/ La Paz – ACC/Lima was agreed and the minimum Longitudinal Separation of 40NM was recorded in Appendix 1 - Reference Table for the transfer of responsibilities.
	IQUIQUE	YES	09/09/22			SAM SUR Agreements
	RESISTENCIA	YES	01/01/17			

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BRAZIL Updated SAM SUR y SAM NORTE 2022						
ACC	ACC ADJ	Longitudinal Separation				Comments
		40 NM GNSS/ DME	Implementation date	20 NM GNSS/ DME	Implementation date	
AMAZÓNICO	BRASILIA	---	---	---	---	10 NM
	BOGOTA	YES	13/10/16	YES* at PTC points defined in LOA ATS	01/12/17	SAM NORTH Note: *20 NM for Amazon in UP527, UP793, UL201 and UL655. 40 NM for Amazónico in LET and 40 NM for Bogota at all points.
	CAYENNE	---	---	---	---	10 Minutes Note from SAM NORTH: Amazonian can receive with 20NM if agreed in CAO.
	CURITIBA	---	---	---	---	10 NM
	GEORGETOWN	YES	07/01/16	YES* at PTC points defined in LOA ATS	28/10/22	SAM NORTH note: *20NM for Amazonian. 20NM for Georgetown via B681, UB681 y UM527 y 40NM via UL322 y UP535. At SUMVA and BUVIP waypoints, flights can be coordinated, case by case, with 20NM for Georgetown.
	LA PAZ	YES	01/01/17	YES *	28/10/22	Nota de SAM NORTE:

				for aircraft inbound FIR AMAZONICO at PTC points defined in LOA ATS		*20NM for Amazonian via UDIDI, ILRES, ARMUK, GEDUS and EROGI; 40NM for Amazon via RCO. 40NM for La Paz. LOA to be signed.
	LIMA	YES	23/10/15	NO	TBD	Note from SAM NORTH: Amazonian can receive with 20NM via UM527 if agreed in LOA.
	MAIQUETIA	YES**	23/10/16	YES* for aircraft inbound FIR AMAZONICO	28/10/22	Note from SAM NORTE: *20NM for Amazonico and **40NM for arrivals in Maiquetia or 80 NM for crossings.
	PARAMARIBO	YES	13/10/16			Note from SAM NORTH: Amazonian can receive with 20NM if agreed in LOA.
	RECIFE	---	---	---	---	10 NM
	ATLANTICO	---	---	---	---	10 Minutes
BRASILIA	AMAZÓNICO	---	---	---	---	10 NM
	CURITIBA	---	---	---	---	5 NM
	RECIFE	---	---	---	---	5 NM
CURITIBA	ASUNCION	YES	Mar/2016	YES	29/03/2018	20 NM for Curitiba and 40 NM for Asunción. However, the LOA has not yet been updated, there are still 10 Minutes of separation. SAM SUR Note: It is required to harmonize the LOA with the separation established in the MOU.
	AMAZONICO	---	---	---	---	5 NM
	BRASILIA	---	---	---	---	5 NM
	LA PAZ	YES	01/01/17	*		The LOA still includes a separation of 80NM for one

						route (A304), the separation of all other routes is 40 NM. *SAM SUR Note: Curitiba can receive with 20NM if agreed in CAO.
	MONTEVIDEO	YES	01/01/17	SÍ	15/11/2018	20NM in general and 10 NM under coordination.
	RECIFE	---	---	---	---	5 NM
	RESISTÊNCIA	YES	01/01/17	*		The LOA has not yet been updated, there are still 10 Minutes of separation. *SAM SUR Note: Curitiba can receive with 20NM if agreed in CAO.
	ATLÂNTICO	---	---	---	---	10 Minutes
	AMAZÔNICO	---	---	---	---	10 NM
RECIFE	BRASÍLIA	---	---	---	---	5 NM
	CURITIBA	---	---	---	---	5 NM
	ATLÂNTICO	---	---	---	---	10 Minutes
	AMAZÔNICO	---	---	---	---	10 Minutes Problems COMMs. VHF
CURITIBA	---	---	---	---		
RECIFE	---	---	---	---		
CAYENNE	---	---	---	---		

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CHILE						
Updated SAM SUR 2022						
ACC	ACC ADJ	Longitudinal Separation				Comments
		40 NM GNSS/DME	Implementation date	20 NM GNSS/DME	Implementation date	
SANTIAGO	IQUIQUE	---	---	----	-----	5 NM
	MENDOZA	YES	3/12/2018			
	PUERTO MONTT	---	----	----	----	5 NM
IQUIQUE	CORDOBA	YES	3/12/2018			Under FL370 applies 10 MINUTES
	LA PAZ	YES	09/09/22			SAM SUR agreements
	LIMA	OG				Agreements on going
PUERTO MONTT	SANTIAGO	---	---	----	----	5 NM
	PUNTA ARENAS	YES	09/09/22	----	---	Note SAM SOUTH: Traffic to-from Antarctica 10 MINUTES.
	EZEIZA	YES	3/12/2018			
	COMODORO RIVADAVIA	YES	3/12/2018			
PUNTA ARENAS	PUERTO MONTT	---	----	----	----	5 NM
	COMODORO RIVADAVIA	YES	3/12/2018			

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COLOMBIA						
Updated SAM NORTE						
ACC	ACC ADJ	Longitudinal Separation				Comments
		40 NM GNSS/DME	Implementation date	20 NM GNSS/DME	Implementation date	
BOGOTA	AMAZÔNICO	YES	28/09/2022	YES*	28/09/2022	SAM North rating: 20NM Traffic only departing via BRACO, ABIDE and ASAPA
	CENAMER	NO	1/09/2022*	NO		Note from SAM NORTE; Oceanica's only route. *LOA SIGNED
	GUAYAQUIL	YES	28/09/2022	NO		
	LIMA	YES	28/09/2022	NO		
	MAIQUETIA	YES	21/03/17 Update pending signatures by Venezuela	YES*	Draft pending signatures by Venezuela	* Note from SAM NORTE; 20NM Only for traffic on specific routes where one or both aircraft are destined for receiving ACC.
	PANAMÁ	YES	13/10/16 Update pending signatures by Venezuela	YES*	Draft in Panama, pending verification	* Note from SAM NORTE; Only for traffic via the NW ACC BOGOTA sector and that one or both of the aircraft have destination receiving ACC.
	BARRANQUILLA	YES	28/02/2020	YES*	28/02/2020	* Note from SAM NORTE; 20 NM Only for traffic in which one or both aircraft have receiving ACC destination.
BARRANQUILLA	MAIQUETIA	YES	21/03/17	YES	Pending signatures by Venezuela	Only for traffic on specific routes on which one or both aircraft have a receiving ACC destination.
	PANAMÁ	YES	13/10/16	NO		

	BOGOTA	YES	5/10/2016	YES*	28/02/2020	* Note from SAM NORTE; Only for traffic in which one or both aircraft have destination receiving ACC.
	KINGSTON	YES	15/06/2013	YES*	20/05/2021	* Note from SAM NORTE; Aircraft of similar type and with the same speed operating at FL200 or more on the same or convergent routes. Outside these parameters 10 Minutes.
	CURAZAO	YES	20/05/2020	NO		

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ECUADOR Updated SAM NORTE 20222						
ACC	ACC ADJ	Longitudinal Separation				Comments
		40 NM GNSS/DME	Implementation date	20 NM GNSS/DME	Implementation date	
GUAYAQUIL	BOGOTA	YES	28/09/2022	NO		
	LIMA	YES	10/11/16	NO		
	CENAMER	NO		NO		Oceanic separation

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FRENCH GUIANA Updated SAM/IG/20						
ACC	ACC ADJ	Longitudinal Separation				Comments
		40 NM GNSS/DME	Implementation date	20 NM GNSS/DME	Implementation date	
CAYENNE	AMAZÓNICO	---	---	---	---	10 Minutes
	PARAMARIBO	---	---	---	---	10 Minutes
	PIARCO					No Information was given

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GUYANA Updated SAM NORTE 2022						
ACC	ACC ADJ	Longitudinal Separation				Comments
		40 NM GNSS/DME	Implementation date	20 NM GNSS/DME	Implementation date	
GEORGETOWN	AMAZONICO	YES	07/01/2016	YES* at PTC points defined in LOA ATS	1/12/22	SAM NORTH note: *20NM for Amazonian, 20NM for Georgetown via B681, UB681 y UM527 y 40NM via UL322 y UP535. At SUMVA and BUVIP waypoints flights can be coordinated, case by case, with 20NM for Georgetown.
	PIARCO	YES	17/08/2017		TBD	Note from SAM NORTE; Drafted LOA sent by Georgetown.
	MAIQUETIA	YES	19/03/2018	YES * for aircraft inbound FIR GEORGETOWN at PTC points defined in LOA ATS	Draft LoA with Maiquetia for signature	Note from SAM NORTE; The Longitudinal Separation is reduced to *20Nm in the Guyana direction upon request and certain conditions. Contingency Plan is harmonized, it is expected by the signatures of Letters Agreement
	PARAMARIBO	YES	17/08/2017		TBD	Note from SAM NORTE; Drafted LOA sent by Georgetown.

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PANAMA Updated SAM/IG/24						
ACC	ACC ADJ	Longitudinal Separation				Comments
		40 NM GNSS/DME	Implementation date	20 NM GNSS/DME	Implementation date	
PANAMÁ	BOGOTA	YES	Oct/16	NO	TBD	In conversations. It is estimated in second semester 2020
	BARRANQUILLA	YES	Oct/16	NO	TBD	In conversations. It is estimated in second semester 2020
	CENAMER	YES	15/11/16	YES	Abril 2019	
	KINGSTON	YES	10/12/16	NO	TBD	Start conversations Second semester 2020

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PARAGUAY Updated SAM/IG/23						
ACC	ACC ADJ	Longitudinal Separation				Comments
		40 NM GNSS/DME	Implementation date	20 NM GNSS/DME	Implementation date	
ASUNCION	CURITIBA	YES	Mar/16 dated SAMIG 16			Traffic from Asunción to Curitiba SAM SUR Note: It is required to harmonize the LOA with the separation established in the MOU.
	LA PAZ	YES	01/01/17			
	RESISTÊNCIA	YES	01/01/17			It is not being implemented. Coordination with Argentina is required

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PERU Updated SAM SUR y SAM NORTE 2022						
ACC	ACC ADJ	Longitudinal Separation				Comments
		40 NM GNSS/DME	Implementation date	20 NM GNSS/DME	Implementation date	
LIMA	AMAZONICO	YES	23/10/2015	NO*	TBD	*Note from SAM NORTE: Amazonian can receive with 20NM via UM527 if agreed in LOA.
	BOGOTA	YES	28/09/2022	NO		

	IQUIQUE	OG				Agreements on going
	GUAYAQUIL	YES	10/11/16			
	LA PAZ	YES	01/07/23			Note SAM NORTE (Updates Note from SAM SUR): LOA ACC/ La Paz – ACC/Lima was agreed and the minimum Longitudinal Separation of 40NM was recorded in Appendix 1 - Reference Table for the Transfer of Responsibilities.

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SURINAM Updated SAM/IG/22 Nov 2018						
ACC	ACC ADJ	Longitudinal Separation				Comments
		40 NM GNSS/DME	Implementation date	20 NM GNSS/DME	Implementation date	
PARAMARIBO	AMAZÓNICO	YES	13/10/16			Signed
	GEORGETOWN	YES	29/03/16			Signed.
	PIARCO	N/A	---	---	---	Oceanic separation
	CAYENNE	N/A	---	---	---	10 Minutes

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URUGUAY Updated SAM SUR 2022						
ACC	ACC ADJ	Longitudinal Separation				Comments
		40 NM GNSS/DME	Implementation date	20 NM GNSS/DME	Implementation date	
MONTEVIDEO	CURITIBA	YES	01/01/17	YES	15/11/18	Coordinated, with effective COM and SURVEILLANCE, shall be 10 NM.
	EZEIZA	YES	01/01/17	YES	01/08/2017	Note SAM SUR: In UGIMI, coordinated, with effective COM and SURVEILLANCE can be 10 NM.

	RESISTENCIA	YES	01/01/17	*	15/03/2018	*SAM SOUTH Note: For review, see the separation of 20 NM in GEMSU. Further study.
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VENEZUELA Updated SAM NORTE 2022						
ACC	ACC ADJ	Longitudinal Separation				Comments
		40 NM GNSS/DME	Implementation date	20 NM GNSS/DME	Implementation date	
MAIQUETIA	AMAZONICO	YES	12/12/15	NO	29/12/2022	Note from SAM NORTE; It is not possible to reduce the Longitudinal Separation to 20nm, we maintain 40NM with conditions
	BOGOTA	YES	21/03/17	YES	01/12/2022	Note from SAM NORTE; It is reduced to 20NM with certain conditions. Contingency Plan is harmonized, it is expected by the signatures of Letters Agreement
	BARRANQUILLA	YES	21/03/17	YES	01/12/2022	Note from SAM NORTE; Reduced to 20NM with certain conditions Contingency Plan is harmonized, expected by the signatures of Letters Agreement
	PIARCO	OG				Note from SAM NORTE; Negotiating- It is required to coordinate through NACC Mexico. A virtual meeting was held between the parties and drafts were exchanged to start work on updating LOAs

Agenda**Item 2:****Update of letters of agreement – LOA ATS**

Note.- The States used the Terms “LOA” or “CAO”, as applicable.

2.1 Under this Agenda Item the following paper was presented:

IP/01 - Update of Letters of Agreement Involving FIR CURITIBA and adjacent FIR (Submitted by Brazil)

2.2 Through a Paper from Brazil, it was reported the update of the LOA ATS related to the FIRs adjacent to the Curitiba FIR, according to the progress of the SAM SUR Workshop/Meeting, Lima, September 05 to 09, 2022, and the Argentina-Brazil-Paraguay Tripartite ATS Meeting, Foz do Iguaçu, October 14, 2022.

2.3 The study of the SAM SUR Meeting on a proposal for improvement regarding the process for updating ATS operational letters of agreement, presented by Argentina, was reviewed. It was indicated that, although there are no regulatory provisions on the methodology for reviewing, updating and underwriting LOA ATS, in several States these documents are signed with the intervention of the senior management of the Civil Aviation Authorities (AAC) and / or Air Navigation Service Providers (ANSP), which makes it difficult to update these Letters of Agreement and their availability in the ATC dependencies.

2.4 Considering the variations of the technical-operational context, increasingly rapid and frequent, due to the evolution of the industry and the permanent innovations in the capabilities of aircraft and in terms of ATM / CNS infrastructure, agile and flexible processes are required to keep the LOA ATS updated. It was considered appropriate to study a proposal of minimum content to be included in these Letters, considering the advances in Air Navigation Services, among others, the implementation of Air Traffic Flow Management (ATFM), which implies agreeing and including measures in this regard.

2.5 Some subjects were identified to study and implement in the scope of SAMIG and its contributing groups, with a view to optimizing the process of updating the LOA, aiming to standardize and condense the content of these documents recognizing their importance in operational safety, in the training processes of ATC staff and decision-making in the ACC during the tasks of coordination and transfer of aircraft.

2.6 The SAM SUR Workshop/Meeting approved a Recommendation on the above subjects, which was presented to SAM/IG/28 Workshop/Meeting, Lima, 3 to 7 October, having been adopted through the following Conclusion;

CONCLUSION SAM/IG/28-01 Improvements to ATS operational agreement charters, regarding their content, application, validity and subscription process.	
That: a) SAM/IG and its contributing bodies promote studies and activities for the elaboration of regional guidance material on criteria for the efficient and safe use of ATS LOAs, regarding their content, application, validity and subscription process. b) The ATS service providers and/or competent ATS authorities, while implementing the recommendations in Item a, coordinate and manage with their counterparts the review and updating of ATS LOA between States, if possible once (01) times a year.	Expected Impact: <input type="checkbox"/> Politics / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Technical/Operational
Why: To ensure efficiency and operational safety in the provision of ATS services and the transfer of aircraft between adjacent units, supporting the recovery of the industry and the restoration of air connectivity of the SAM Region.	
When: No later than June 2024	Status: Adopted by SAM/IG/28
Who: <input type="checkbox"/> Coordinators <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> Secretariat OACI <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Others:	

2.7 SAM NORTH agreed on the importance of the aforementioned Conclusion of SAMIG/28 that will be implemented by an adhoc group of GESEA/SG1. It was agreed to propose to the Adhoc Group that the inclusion in its study topics include texts on lateral separation, as stipulated in Doc. 4444, for cases of lateral deviations that aircraft can perform in case of adverse weather or by direct routing maneuvers.

2.8 Also, during a Teleconference held on Wednesday, October 26 between Trinidad and Tobago and Venezuela, a Eurocontrol reference was identified that has issued a guide on the management of LOA ATS and the corresponding staff, which should be taken as a reference by the adhoc group. The aforementioned material can be found at the following link;

<https://www.eurocontrol.int/sites/default/files/2020-02/eurocontrol-cf-LOA-edition-5.pdf>

2.9 In view of the above, SAM NORTH approved the following recommendation;

RECOMMENDATION SAM NORTH-01	
Consider studies on the text of EUROCONTROL and on parameters of Lateral separation of aircraft for LOA ATS, within the tasks of the Adhoc Group in charge of implementing CONCLUSION SAM/IG/28-01.	
That:	Expected impact:
a) The "Common format of LOA between ATS units" of Eurocontrol and the respective template being taken as a reference.	<input type="checkbox"/> Politics / Global
b) The parameters on lateral separation for air traffic transferred between ACCs being studied.	<input type="checkbox"/> Inter-regional
	<input type="checkbox"/> Economic
	<input type="checkbox"/> Environmental
	<input checked="" type="checkbox"/> Technical/Operational
Why: To base the studies of improvements in the management of ATS LOAs on good practices of the EUR NAT Region, and to facilitate an adoption of this common reference in the SAM and CAR Regions. Include lateral separation parameters in the ATS LOA of the SAM Region.	
When: Immediately	Status: Adopted by SAM NORTH
Who: Adhoc Group in charge of implementing CONCLUSION SAM/IG/28-01 and Secretariat.	

2.10 The Secretariat was responsible for coordinating these inputs and transferring them to GESEA/GS1.

2.11 The Workshop/Meeting was distributed in eleven (11) bilateral working groups, grouping the seven (07) States with their respective counterparts. Improvements in the texts of the ATS Letters of Agreement were analyzed, updated, and agreed upon and, simultaneously, the Contingency Plans of the FIRs involved were harmonized to ensure that operational support and effective coordination by the surrounding CRAs are offered when a State activates its Plan. About ATS Contingency Plans; see further report on Item 3.

2.12 Considering the need for additional coordination with State regulatory authorities, some of the work of the tables will be complemented with other activities, having agreed on the next processes and deadlines for deliverables and signatures of authorities.

2.13 The tables had obtained the results described below;

✓ *Colombia – Venezuela*

2.14 LOA SVZM – SKED; Final correction of emails was made, incorporating numbers and corporate references, personal references were eliminated as far as possible.

2.15 LOA SVZM – SKEC; It is proposed to modify numeral 9.3 MEANS OF COORDINATION so that there are no references of the AIDC protocol until it is certified to include in the

letter. The proposal to incorporate the cartography of the contingency plan as an annex to the present is eliminated.

2.16 On the signatures of the documents; the final versions of LOAs between SVZM – SKED and SVZM – SKEC agreed and approved by the representatives of the states involved, remain in the custody of the representatives of the ATM Management, to be presented to the corresponding INAC authority, pending the definition of the authorization of signatures.

2.17 The observation is made that Colombia has different terminology to establish contingency levels.

2.18 There is an opportunity for improvement in both contingency plans optimizing, in the case of severe - total contingency (ATC ZERO) replacing in the case of Colombia the route UM 414 (OPRUS) and Venezuela UM662 (AMAYA) and proposing for both the UP776 (PAY), the other provisions are maintained.

2.19 Results for LOAs: The final versions of the two letters of agreement, as soon as it is managed with INAC and the signatures are authorized, will be sent digitally to the focal point of Colombia, to consign the corresponding signatures, this will be followed up to close the process before November 10, electronic signatures are admitted.

2.20 Results for Contingency Plans: Colombia will adopt the terminology that has been established in the MCTS/SAM, therefore, it will make the modifications of the publication in ENR 1.15 in the future AIRAC cycle.

2.21 Colombia and Venezuela will incorporate the corresponding improvement in each contingency plan by adopting route UP776. In the network of routes the contingency plan of Venezuela, transits in sequence require a minimum separation of 20 minutes and 25 minutes when more spacing is required by congestion of routes used, therefore, Colombia will adjust to the separation of Venezuela in case of simultaneous failure in both FIR.

✓ *Colombia – Brasil*

2.22 Brazil reports that there is no problem in adopting the format and order proposed by Colombia. Paths below FL245 are removed from the document. The route network is checked.

2.23 The problem of the lack of availability of FPLs in Brazil is exposed. Brazil requests that reference be included in the letters of agreement of airspace below FL245 with the TMA of Amazonas control. Brazil reports the improvement in CNS in the Manaus sector, therefore, they are able to accept separations of 20 NM except routes via Leticia.

2.24 Brazil explains the contingency levels for cases in which space is declared NO RVSM, it is observed that this situation may involve airspaces of both states, it is detailed difference in that the levels available by Brazil are according to the table of semicircular levels and those of Colombia are according to the table proposed by contingencies RVSM annex 2, convenience of harmonizing this table is exposed, taking as reference the most restrictive.

2.25 In presenting the contingency plan, Colombia presents differences in the denomination of the contingency levels to the MCATS. Colombia makes the presentation of the published plan, there is no comment on the matter from Brazil.

2.26 Colombia reports the difficulty of interpreting the set of routes in Brazil's contingency plan, suggesting that mapping of the simplified route network be incorporated into the contingency plan.

2.27 AIDC implementation proposal for coordination between states. It establishes the need to form an implementation team with personnel from both states. Among the initial requirements, a diagnosis of the problems presented by the availability of Flight Plans must be presented. The work program for the implementation of the AIDC will be subject to the availability of the ATM Planning Sector Group of Brazil.

2.28 In the longitudinal separation numeral, Brazil accepts transit through the BRACO, ABIDE and ASAPA points at 20 NM, the separation of 40 NM by LET is maintained in the NORTH SOUTH direction, on the other hand, Colombia maintains 40 NM of separation for transit entering the SKED FIR. Colombia accepts Brazil's table of proposed levels for contingency RVSM.

2.29 The letter is developed according to the acceptance of both parties, it was finalized on Friday, October 28.

2.30 Colombia will incorporate the improvements in its contingency plan in the future AIRAC cycle, which is included in AIP ENR 1.15 in Spanish and in supplement C57/A28 in English and Spanish.

2.31 Brazil has published the contingency plan on WEB and will take the request to the group responsible for mapping development, to address the suggestion to incorporate a network chart of simplified routes from the contingency plan.

2.32 The contact of the functional leader for the implementation of the AIDC is delivered to the representatives of Colombia, so that the Implementation Working Group is established bilaterally, this group will be solved, as far as possible, by the end of 2022, the goal is to present a proposal for an implementation plan by May 2023.

✓ *Colombia – Peru*

2.33 Delegates agree to eliminate the lower routes named in the letter, this because it is not within the scope of this. The representatives of Lima inform that the R567 route is not used in Lima airspace, the representatives of Colombia inform that, to make use of this to Peruvian airspace, operators must manage special permission for its use, therefore, they proceed by routes within the FIR Bogotá, there is no evidence that the A301 is used or used by any operator.

2.34 Due to the rotation of personnel in the different groups referred to in the contact tree, it is required that the data included in these documents be those assigned to the position such as group mail and corporate telephones, not including personal, but institutional. The topics of separations and procedures that are carried out through virtual meetings are read and verified, there are no substantive changes incorporated.

2.35 The specification of the contingency plan is removed and the reference of the contingency plan document for each country is recorded.

2.36 Colombia will adopt the terminology that has been established in the MCATS, therefore, it will make the modifications of the publication in ENR 1.15 in the next AIRAC cycle. Colombia will incorporate the corresponding improvement in each contingency plan by adopting route UP776 to optimize these, a measure that is transparent for the SPIM FIR since both routes enter through ILMUX.

2.37 Colombia will incorporate in the contingency plan the UM674 route to assign unidirectional routes in the Pacific, respecting the assigned levels of delivery to the adjacent FIRs. Colombia states that in the BOKAN position, the levels required are different in the contingency plan from those agreed by letter in accordance with SEFG.

2.38 As a result, the final update is made, the documents are sent even the virtual signatures of those who are not present and the delegates deliver the signed LOA at this meeting. The issue of unused routes will be raised to the ASM Group of Peru and Colombia to study the relevance of eliminating it or not from the publications of each country.

2.39 The contingency plans are analyzed in their application, generates conflict in the adjacent state of Guayaquil and requires SPIM to take into account the procedures to be followed to meet what is required with Colombia. The improvements agreed in the Contingency Plan will be incorporated for the next AIRAC cycle.

✓ *Colombia – Ecuador*

2.40 Verification of the LOA proposal made by Colombia, this version is taken as a point of continuity for the development of the agreements. It is emphasized that route UN776 is a route that stopped being requested since the TAME company did not operate, on the Esmeraldas - Cali route. Cases where the route network converges in competing airspaces or in the airspace annexed thereto are presented.

2.41 It is noted that Colombia does not have an alternative ATFM message address for messages generated by FPL and AIDC coordination.

2.42 The representatives of Ecuador deliver the editable letters of agreement in force between CTA CLO - ACC SEFG - GSAN 1.3-3-4 and SKIP TWR SETU- GSAN 1.3-3-42 to start the process of updating these, whose effective dates date from February 11, 2010.

2.43 Final correction of emails was made, incorporating numbers and corporate references, personal references were eliminated as far as possible.

2.44 The occurrence of LHD by human and technical factors is evident, which will be treated jointly by Panama, Ecuador and Colombia at the headquarters of the Regional Office in Lima, meeting in December to identify causes of what is happening and thus be able to take effective corrective actions.

2.45 It is agreed that routes UL780 and UM674 will be considered as one for transfer purposes by GYV.

2.46 In presenting the contingency plan, Colombia presents differences in the denomination of the contingency levels to the MCATS. It is emphasized that in the contingency plan of Colombia, aircraft that use the entry or exit by BOKAN, are required with the levels according to the table of assignment to semicircular courses, this measure goes against what was agreed by both countries in a letter of agreement.

2.47 The line adapted by Colombia when designing the simplified network of routes, to propose connectivity between adjacent FIRs, shows that there is no need to maintain the UQ102 route that connects FIR SEFG with SKEC, being the entry and exit point BOKAN.

2.48 Colombia in the Pacific Ocean, according to contingency plan, only considers the bidirectional UL780 route, it is analyzed that there may be an improvement action to harmonize the routes that have flow from the FIR Peru, adopting two routes, each hour in a different direction, will be left to

consideration of the conclusions that are resolved in a meeting between SKED and MPZL, The above is progress for level 3 of the Contingency Framework Plan.

2.49 Ecuador makes the presentation of its contingency plan, there is no observation. In a harmonized contingency plan, it is proposed to change route UM674 to UM795 via BOKAN while maintaining flight levels. Also in advance of the analysis of level 3 of the Framework

2.50 As a result, the letter is developed according to the acceptance of the two parties, it was finalized on Friday, October 28.

2.51 Colombia will incorporate the improvements in its contingency plan, after harmonization with Panama in the future AIRAC cycle, which is included in AIP ENR 1.15 in Spanish and in supplement C57/A28 in English and Spanish.

2.52 Ecuador has published, on April 21, 2022, SUP 02-22 ATS Contingency Plan for the FIR/UTA Guayaquil. Ecuador on February 9, 2023, will proceed with the publication of the Contingency Plan for its insertion in ENR 1.15 that will enter into force on March 23, 2023.

✓ ***Bolivia – Brasil***

2.53 Review of the proposal to update the Charter of Operational Agreement established between the Amazon ACC and the ACC La Paz. Adjustments regarding separations, coordination procedures, telephone numbers and email addresses.

2.54 Review of the proposal to update the Operational Letter of Agreement established between the ACC Curitiba and the ACC La Paz. Adjustments regarding separations, coordination procedures, telephone numbers and email addresses.

2.55 Those present agree to the signing of the CAO by Brazil. The signature by Bolivia will be made physically, for which the ICAO Regional Office remains in custody of the document and will send it by mail to the authority of Bolivia, for its return with the corresponding signatures.

2.56 The CAO between ACC Amazónico and ACC La Paz, as well as the CAO between ACC Curitiba and ACC La Paz, are considered revised and updated.

✓ ***Bolivia – Peru***

2.57 The representatives verified what was agreed at the SAM SUR meeting by updating the data of the operational agreement charter. Routes and points not previously included were included. The contact tree has been updated, with the current names and phone numbers. The issues of separations and procedures agreed in SAM SUR are verified.

2.58 The Contingency Plan annex is deleted and the AIP reference of each State is recorded. The proposal regarding the Copacabana aerodrome is received, to be evaluated and that was not treated in SAM SUR, it must appear in an annex that is in the process of verification. The representative of Bolivia explained that the validity of the LOA would depend on achieving the corresponding legal changes for the approval of the document and trying to remove this process from the operational documents.

2.59 Analysis of contingency plans; The observation is made that both States should use the terminology established in the MCATS Framework Plan since the terminology is different to establish contingency levels. Peru is in the process of adopting the terminology of the MCATS, initially it will be published in ENR 1.15 of AIP Peru.

2.60 As a result, the final update of the LOA between the ACC Lima and ACC La Paz is carried out. The issue of unused routes will be raised with the ASM Group of Peru and Bolivia to study the relevance of eliminating it or not from the publications of each country.

✓ ***Brasil – Peru***

2.61 Phone tree was updated. Verification of separation and coordination issues. Exclude the annex of Contingency Plans indicating that the publication is in the AIPs of each State. New numbering of Appendices.

2.62 Analysis of contingency plans; The observation is made that both States should use the terminology established in the MCATS Framework Plan since the terminology is different to establish contingency levels.

2.63 Routes and points not previously included were included. The contact tree has been updated, with the current names and phone numbers. The issues of separations and procedures between the two States are verified. The Contingency Plan annex is deleted and the AIP reference of each State is recorded. RPL and AIDC data were deleted.

2.64 The final update of the LOA between the ACC Lima and Amazónico ACC is completed.

2.65 Peru is in the process of adopting the terminology established in the MCATS, initially it will be published in ENR 1.15 of AIP Peru.

✓ ***Brasil – Venezuela***

2.66 Correction of emails, phone numbers, and corporative phones was made. It is proposed to modify numeral 2.2 Entry of aircraft without a flight plan, including a note, which improves understanding and what should be done in case of not having the FPL.

2.67 The time limit for transfer of communications is reduced from 5 minutes to 3 minutes before reaching the common limit of the FIR. The incorporation of the AIDC protocol is suspended until it is certified to include in the letter. And oral coordination is maintained as the main means.

2.68 Reduction to 40 NM or 5 minutes is accepted for aircraft flying over Venezuela from south to north from Brazil by prior agreement, if they do not have to maintain the 80 NM separation. The proposal to incorporate the cartography of the contingency plan as an annex to this LOA is accepted. And it is accepted to only refer to the location of each Contingency plan.

2.69 The final version of LOA between SVZM – SBAZ agreed and approved by the representatives of the States involved, remains in the custody of the representatives of the ATM Management, to be presented to the corresponding INAC authority, pending the definition of the authorization of signatures.

2.70 Contingency plans are harmonized, and they are ready for application.

2.71 As a result of the table, the final version of the letter of agreement, as soon as it is managed with INAC and the signatures are authorized, will be sent digitally to the focal point of Amazónico, to record the corresponding signatures, this will be followed up to close the process before November 10. Electronic signatures are supported. It is placed as a tentative date for the letter agreement to enter into force January 15, 2023.

✓ ***Brasil – Guyana***

2.72 Update of the minimum separation between aircraft flying at the same level and route. Inclusion of the maximum coordination/approval period (60 minutes).

2.73 Delegates from both states agreed to send the updated files by e-mail and number the versions. Thus, the delegates of Brazil sent version 2 with some adjustments and subsequently received version 3 from Mr. Trevor, delegate of Guyana. As a result, the LOA is considered revised.

✓ ***Ecuador – Peru***

2.74 The representatives of both States agree to include UP408 and the KABAG item. Staff data is updated in the different groups referred to in the contact tree. The topics of separations and procedures that are carried out through virtual meetings are read and verified, there are no substantive changes incorporated.

2.75 The annex referring to contingency plans is deleted and the reference of the contingency document for each country is recorded.

2.76 The representatives of Ecuador deliver the "Letter of operational agreement signed between the area control centers of Guayaquil and Lima with application to the approach control units of Piura, Santa Rosa and Tumbes", so that the updating process is managed because it dates from December 2011.

2.77 States are in the process of adopting the terminology that has been established in the MCATS/SAM.

2.78 The agreement letter is updated proposing effectiveness as of January 15, 2023. Contingency plans are analyzed in their application and publication in the AIP of each State.

✓ ***Guyana – Venezuela***

2.79 Final correction of emails was made, corporate numbers were incorporated, personal references were eliminated as far as possible. A point of lateral separations was added and left reflected as it will be used as recommended in Doc. 4444.

2.80 An item was added to allow that the consulted FIR will lend as far as possible its collaboration to identify aircraft in the vicinity of the common limits. Added point where the RIS that has transits close to the common limit will report these to the Adjacent FIR.

2.81 The Longitudinal separation was reduced, according to the requirement of the pilots to occupy flight levels, in the direction (South) to Georgetown, and the separation of 40 NM in the direction of the Maiquetia FIR was maintained. Reference is made to the Supplement to the Contingency Plan of Venezuela and Piarco, in case of any failure. New ATS Route is added.

2.82 The longitudinal separation will be 40 NM in the direction of Venezuela or 20 NM in the direction of Guyana on request (case by case application). In addition, Georgetown and Maiquetía must inform each other about lateral deviations and/or request direct routes before authorizing. Georgetown and Maiquetia will exchange information on unidentified traffic in the vicinity of the RIS boundary. FLAS (Flight level assignment scheme) and Contingency Route Chart must be included in the LOA of both FIRs.

2.83 It was agreed that Venezuela will review the Charter included in the Contingency Plan in order to comply with the requirements of ICAO Annex 4 and eliminate any non-essential or ambiguous information. Additionally, Venezuela will inform the ICAO SAM Office and Guyana of the conclusion of its review, after which the ICAO SAM Office will make the pertinent recommendations if it deems it necessary.

2.84 The final versions of the letter of agreement, as soon as it is managed with INAC and the signatures are authorized, will be sent digitally to the focal point of Guyana, to consign the corresponding signatures, it will be followed up to close the process before November 10, 2022. Electronic signatures are supported. Preliminary agreement is obtained on the final draft of the LOA with a proposed implementation date, December 1, 2022. The LOA is considered revised and amended and pending signatures authorized by INAC.

Trinidad and Tobago - Venezuela Teleconference

2.85 The Teleconference achieved the following; it was agreed that FIR PIARCO send a first draft of the Letter Agreement on November 4, 2022 via mail to the office of Mexico NACC and then this in turn to the SAM Regional Office so that it can be sent to the Aeronautical Authority of Venezuela and thus begin the studies and revisions of this draft, generating a response that will then be specified with virtual meetings until constituting a consolidated document to carry out the signatures between the parties.

2.86 Both ACC/FIR commit to send by next week Draft supplement of optimized ATS routes in adjacent spaces to verify that both maintain the same content and will be published on December 1, 2022 with effective date January 26, 2023.

Works in progress

2.87 The work in progress of great importance to obtain a complete update of the ATS LOA of the Region was outlined, including:

- LOAS ATS Colombia – Panamá (not participant)
- LOAS ATS Colombia – Venezuela, regarding ATS units of Cucuta, Puerto Carreño, Puerto Ayacucho, etc.
- LOAS ATS Colombia – Ecuador, regarding Cali – Guayaquil and Tulcan – Ipiales.
- LOA ATS Colombia – Brasil para Leticia – Tabatinga
- LOA ATS Brasil - French Guyana

Agenda**Item 3: Harmonize the ATS Contingency Plans (level 2) in accordance with the MCATS, based on the tasks and progress of the group of specialists GESEA**

3.1 As indicated in the report of Item 2, the Workshop/Meeting was distributed in eleven (11) bilateral working groups. The Delegations carried out the analysis and harmonization/awareness of their ATS Contingency Plans.

3.2 Among other tasks, technical data of each State were updated, the operability and security of the simplified route network, alternating communications, routing method, transfer points and direction of flows, as well as special procedures such as the use of in-flight information broadcasting (TIBA), Autotransfer, etc. were agreed.

3.3 The situation of the ATS Contingency Plans for each State, after the aforementioned activities and some presentations made by the Delegates, is as follows:

Bolivia

The DGAC has been coordinating in legal instances of the State the revision and updating of DS 28496 issued in 2005 where the text of the ATS Contingency Plan of Bolivia was approved. It aims to incorporate in the revised standard provisions on the performance of the NAABOL provider in cases of ATS contingencies, and would transfer all the operational parameters of the Plan (routes, transfer points, etc.) to the AIP so that the updating of the Plan is flexible, later. A deadline has been defined **no later than July 1, 2023** for these activities, which affect the signing of updated ATS LoA.

Brazil

Publishes its Plan in Portuguese/English, in section ENR 1.15. The preparation of cartography is planned. It has defined some improvements in consensus with Colombia.

Colombia

Colombia will incorporate the improvements in its contingency plan in the future AIRAC cycle, which is included in AIP ENR 1.15 in Spanish and in supplement C57/A28 in English and Spanish. It reached consensus with Brazil, Ecuador and Venezuela to work on improvements to the simplified route network. It also requires defining parameters with Panama (it will be carried out by teleconferences) for route diagramming in the Pacific area.

Ecuador

Ecuador has published, on April 21, 2022, SUP 02-22 ATS Contingency Plan for the FIR/UTA Guayaquil. Ecuador on February 9, 2023, will proceed with the publication of the Contingency Plan for its insertion in ENR 1.15 that will enter into force on March 23, 2023. It is studying joint improvements to its Harmonized Plan with Colombia.

Guyana

Publish its Plan in AIP. In the working groups, it was harmonized with the counterparts.

Agenda**Item 5:****Improvements for ATFM delivery**

5.1 The Workshop/Meeting analyzed examples of memoranda of understanding (MOU) on ATFM matters signed in the Region, including the Peru - Bolivia MOU, and the Argentina - Uruguay MOU, both implemented in 2017.

5.2 The antecedents, years ago, of the flow control measures NOTAMs and the impact of "domino effect" on operations in the Caribbean and South American FIRs were analyzed. Flow management measures should be undertaken to mitigate demand-capacity imbalances (understood to be temporary) in a given ATS/airspace sector.

5.3 It was explained that the ATFM services of Chile, Brazil, Uruguay and Argentina carry out good practices of coordination and sharing of information at the pre-tactical and tactical level. However, it was recognized that difficulties remain in coordination between the FMPs and/or ACCs of the SAM region, since the ATFM services have, to date, a national operational model (ATFM phase II-B). Therefore, the Region must address this matter when the implementation of *Cross-border* Phase III begins.

5.4 Participating States, especially those adjacent to the CAR Region, recognized that they generally use NOTAM as a means of implementing ATFM measures, or flow control measures. For example, in sectors of RIS over the Pacific Ocean. It was taken into account that this could be a reflection of the scarce integration or coordination of ATFM services.

5.5 The Secretariat and the delegate of Brazil (Coordinator of GESEA's ATFM SG3), took note of these matters to analyze with this subgroup the requirements for improvement in coordination and the need to sign documents that reinforce the tasks of the regional ATFM.

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APPENDIX A6

REGIONAL LIST OF CONTACT POINTS (PHONE TREE)

LISTA REGIONAL DE PUNTOS DE CONTACTOS (ARBOL DE LLAMADAS)

Note: The list includes as the primary means of communication the cellular/mobile number of the designated POC official or, optionally, the cellular/mobile number corresponding to the designated position or position.

**Reviewed, Sep 2022 – SAM SUR*

*** Reviewed, Oct 2022 - SAM NORTH*

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