

INTERNATIONAL CIVIL AVIATION ORGANIZATION South American Regional Office

FIFTEENTH MEETING OF CIVIL AVIATION AUTHORITIES OF THE SAM REGION

RAAC/15

FINAL REPORT

(Asuncion, Paraguay, 4 – 6 December 2017)

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of ICAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

TABLE OF CONTENTS

i -	Table of contents	i-1
ii -	History of the Meeting	ii-1
	Place and duration of the Meeting	
	Opening ceremony and other matters	ii-1
	Organization, Officers and Secretariat	ii-1
	Working languages	ii-1
	Agenda	ii-2
	Attendance	ii-2
	List of Conclusions	ii-2
iii -	List of participants	iii-1
Repor	rt on Agenda Item 1	1-1
1	Follow up on conclusions adopted by previous RAAC meetings	
Repor	rt on Agenda Item 2	2-1
	al and regional civil aviation requirements and challenges:	
	a) Follow up results of the 39 th Session of the ICAO Assembly (A39)	
	b) Results of main ICAO global aviation symposia	
Repor	rt on Agenda Item 3	3-1
	ew of results obtained in the SAM Region on security matters	
Repor	rt on Agenda Item 4	4-1
Follo	w up to the implementation of safety and air navigation regional priorities: a) Safety implementation priorities	
	b) Implementation priorities of air navigation improvementsc) PBIP new version	
Repor	rt on Agenda Item 5	5-1
	O regional technical cooperation tools for the implementation of air	
	ation and safety improvements	
Repor	rt on Agenda Item 6	6-1
	onal plan for the sustainability of the air transport in SAM Region	
Repo	rt on Agenda Item 7	7-1
Other	matters	

HISTORY OF THE MEETING

ii-1 PLACE AND DURATION OF THE MEETING

The Fifteenth Meeting of Civil Aviation Authorities of the SAM Region was held in Asuncion, Paraguay, from 4 to 6 December 2017.

ii-2 **OPENING CEREMONY AND OTHER MATTERS**

Mr. Olumuyiwa Benard Aliu, President of the ICAO Council thanked the participants for their attendance and referred to the progress made in the Region concerning safety and air navigation improvements. Dr. Luis Manuel Aguirre Martinez, President of the National Directorate of Civil Aviation (DINAC) of Paraguay addressed the participants and inaugurated the Meeting.

During the opening ceremony, Dr. Aliu presented the *Council President Certificate* to the States of Paraguay and Uruguay, in recognition to the significant progress made in resolving their safety oversight deficiencies and improving effective implementation (EI) of ICAO Standards and Recommended Practices (SARPs).

In addition, the President of DINAC presented the *DINAC Award* to the President of the ICAO Council.

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

Dr. Luis Manuel Aguirre Martinez, President of DINAC (Paraguay) was elected Chairperson of the Meeting. Air Force Brigadier General Víctor Villalobos was elected Vice-Chairperson. Mr. Oscar Quesada-Carboni, ICAO Acting Regional Director, acted as Secretary of the Meeting. Dr. Aliu participated in the session of 4 December.

However, in view of the commitments of the President of the Meeting, as host of the event, the Vice-Chairperson, General Víctor Villalobos, conducted the Meeting.

Mr. Oscar Quesada-Carboni was assisted by Mr. Onofrio Smarrelli, CNS Regional Officer, Mrs. Veronica Chavez, TA Regional Officer and Mr. Pablo Lampariello, AVSEC Regional Officer of the SAM Regional Office.

Likewise, the Meeting acknowledged EMPIC, sponsor of the event, for presenting and showcasing its products.

ii-4 **WORKING LANGUAGES**

The working languages of the Meeting and of its relevant documentation were English and Spanish.

ii-5 **AGENDA**

The following agenda was adopted:

Agenda Item 1: Follow up on conclusions adopted by previous RAAC meetings

Agenda Item 2: Global and regional civil aviation requirements and challenges

- a) Follow up results of the ICAO Assembly A39 Sessions
- b) Results of main ICAO global aviation symposiums
- Agenda Item 3: Review of results obtained in the SAM Region on security matters
- Agenda Item 4: Follow up to the implementation of safety and air navigation regional priorities:
 - a) Safety implementation priorities
 - b) Implementation priorities of air navigation improvements
 - b) PBIP new version
- Agenda Item 5: ICAO regional technical cooperation tools for the implementation of air navigation and safety improvements
- Agenda Item 6: Regional plan for the sustainability of the air transport in the SAM Region
- **Agenda Item 7:** Other matters

ii-6 ATTENDANCE

The meeting was attended by 11 States of the SAM Region, 2 States of the NAM/CAR Region and 1 State of the EUR Region, as well as by 2 international organisations and 3 representatives of the industry, totalling 69 participants. The list of participants is shown in page iii-1 and iii-2.

ii-7 LIST OF CONCLUSIONS

\mathbf{N}°	Title	Page
15/01	Fulfilment of the commitment regarding LAR harmonisation	1-1
15/02	Preparation for subsequent ICAO Assembly sessions and international events, and actions and follow-up to the results obtained at these events	2-2
15/03	Action plans for CO ₂ reduction and accession to the CORSIA Scheme	2-3
15/04	Alignment of the AVSEC/FAL/RG Strategic Plan with the GASeP	3-4
15/05	Implementation of OSS	3-4
15/06	Strengthening CAA competencies in the concept of economic assessment of ANSPs and aerodrome operators	4-10
15/07	Action to be taken for the approval of the Regional plan for the sustainability of air transport in the SAM Region and the declaration of implementation	6-2

LIST OF PARTICIPANTS

ARGENTINA

1. Hernán Adrián Gómez

Director Nacional de Transporte Aéreo, ANAC

2. Carlos Rubén Fernández

Representante alterno Argentina Consejo OACI

BOLIVIA

3. Carlos Fernando Pizarro Alcazar

Director de Dirección Jurídica

4. Reynaldo Cusi Mita

Director de Navegación Aérea

BRASIL / BRAZIL

5. Helio Paes de Barros

Director, ANAC

6. Luis Cláudio da Fonseca Bragança Pinheiro

Jefe del Dpto. de Administración, DECEA

7. Ary Rodrígues Bertolino

Adjunto SDOP, DECEA

8. Edson Fagundes Gomes

ATM/ATFM Business Development, Atech

9. Daniel Ramos Longo

Jefe de la Asesoría Internacional

10. Mario de Miranda Angelloti

Misión Técnica Aeronáutica Brasilera

CHILE

11. Víctor O. Villalobos

Director General de Aeronáutica Civil

12. Lorenzo Sepúlveda Biget

Director de Seguridad Operacional, DGAC

COLOMBIA

13. Edgar Francisco Sánchez Canosa

Director General Encargado, UAEAC

14. Paola Ortiz Cárdenas

Coordinadora Grupo Gestión de Estándares Internacionales, UAEAC

CUBA

15. Carlos R. Pérez Andino

Vicepresidente del IAAC

16. Odalys Fernández Valdés

Dpto. Asesoría Legal, IAAC

ESTADOS UNIDOS / UNITED STATES

17. Krista Berquist

Manager, Western Hemisphere Office Office of International Affairs, FAA

18. Leandro (Paul) Friedman

Senior Representative, FAA

19. Robert Ruiz

Division Manager

International Programs and Policy Division Flight Standards Service, FAA

20. Katherine Haley

Western Hemisphere Regional Coordinator International Programs and Policy Division Flight Standards Service, FAA

21. Rachel Manis

Multilateral Engagement Branch, TSA

FRANCIA

22. Bertrand De Lacombe

Jefe de la Cooperación Internacional en Aviación Civil, DGAC

23. Emmanuel Rocque

Encargado de la cooperación en Aviación Civil para la zona América, DGAC

GUYANA

24. Lt. Col. Egbert Field

Director General, CAA

25. Abraham Samuel A. Dorris

Manager, Aviation Security, CAA

26. Rickford Surech Samaroo

Director, Air Navigation Services, CAA

PANAMÁ

27. Alfredo Fonseca Mora

Director General, AAC

PARAGUAY

28. Luis Manuel Aguirre Martínez

Presidente, DINAC

29. Aurora Torres

Asesora DINAC, Representante ante la OACI

30. Roque Díaz Estigarribia

Director de Aeronáutica, DINAC

31. Gustavo Sandoval Lamas

Subdirector de Seg. de la Aviación, DINAC

PARAGUAY (Cont.)

32. Guillermo Italo Benetto

Subdirector de Normas y Vuelo, DINAC

33. Raquel Guastella

Coordinadora de Facilitación y Gestión Aeroportuaria, DINAC

34. Hernán Colman

Coodinador Unidad de Vigilancia de la Seguridad Operacional, DINAC

35. Daisy Ferreira Cabanellas

Gerente de Sistemas de Gestión de la Calidad, DINAC

36. Jacqueline González

Gerente de Estudios Económicos, DINAC

37. Alison Colman

Gerente de Regulación de los Servicios Aeronáuticos, DINAC

38. Liz Rocío Portillo Castellanos

Gerente de Normas de Navegación Aérea, DINAC

39. Pedro Gómez Frutos

Gerente de Normas AVSEC, DINAC

40. Rocío Morinigo B.

Jefe Departamento Programas AVSEC, DINAC

41. Ramón Martínez

Director Auditoria Interna, DINAC

42. David Fernando Duarte Brizuela

Jefe del Departamento CNS, DINAC

43. Rubén Pino

Subdirector Infraestructura, DINAC

44. Delia Giménez Aranda

Jefe de Departamento, DINAC

45. Rocío Araujo Cajes

Gerente de Operaciones, DINAC

46. Jorge Szwako Montero

Gerente de Telecomunicaciones y Electrónica, DINAC

47. Daniel Antonio Báez Argaña

Secretario General, DINAC

48. Adalberto Meza Abdo

Asesor Jurídico Jefe, DINAC

49. Marcelo Fernando Amabile Miranda Asesor Jurídico, DINAC

50. Roberto Carlos González Romero

30. Roberto Carios Guizalez Rolliero

Coordinador General RAN, DINAC

51. Carlos David Urquhart Cáceres

Coordinador de Asuntos Aeronáuticos, DINAC

52. Emilio Verruck

Coordinador General CIPAA/DINAC

53. Hugo Antonio Zalazar

Unidad Seguimiento y Vigilancia, DINAC

54. Maria Regina Valiente

Directora del INAC

55. Víctor Velásquez

Director de Aeropuertos, DINAC

56. Elke Stumpf

Gerente FAL, DINAC

57. Jorge Milciades Martinez Del Barco

Jefe de Dpto. Gestión Aeroportuaria-FAL, DINAC

PERÚ

58. Juan Carlos Pavic Moreno

Director General de Aeronáutica Civil, DGAC

URUGUAY

59. Antonio Alarcón

Director Nacional, DINACIA

60. Marcos Revetria

Director de Seguridad Operacional, DINACIA

VENEZUELA

61. Jorge Luis Montenegro

Presidente, INAC

62. Carlos Silfredis Mata Sola

Gerente General de Seguridad Aeronáutica, INAC

63. Gustavo Antonio Ferrer Coa

Director de Despacho del Viceministro de Transporte Aéreo

INTERNATIONAL ORGANIZATIONS

AIRBUS

64. Andreas W. Kohn

Senior Director

International Air Transport Cooperation

CANSO

65. Franklin Nogueira Hoyer

Aviation Consultant

CLAC/LACAC

66. Marco Ospina Yépez

Secretario, CLAC

EMPIC

67. Jorg Kottenbrink

Chief Executive - EMPIC GmbH

IATA

68. Ofelia M. Bárcena

Assistant Director

69. Juan Carlos Casanova

Campaign Manager

70. Julio Cesar de Souza Pereira

Safety and Flight Operations Assistant Director

IFALPA

71. Osvaldo Jodas Lopes Neto

Executive Vice President

OACI / ICAO

72. Olumuyiwa Benard Aliu

President of the ICAO

73. Iván Galán

Director de Cooperación Técnica, Sede

74. Oscar Quesada-Carboni

Director Regional Interino, Oficina SAM

75. Onofrio Smarrelli

RO/CNS, Oficina SAM

76. Verónica Chávez

RO/TAO, Oficina SAM

77. Pablo Lampariello

RO/AVSEC, Oficina SAM

78. Walter Amaro

Coordinador Internacional del Proyecto PAR/08/801, Paraguay

79. Luis Caicedo

Experto en Operaciones de Aeronaves del Proyecto RLA/99/901, Paraguay

Agenda Item 1: Follow up on conclusions adopted by previous RAAC meetings

- 1.1 Under this Agenda Item, the following working paper was presented:
 - ▶ WP/02 Follow-up to RAAC Conclusions (presented by the Secretariat).
- 1.2 The Meeting analysed the progress made in the implementation of valid conclusions formulated by the RAAC/14 and previous meetings. The results are presented as **Appendix** to this Agenda Item.
- 1.3 According to the analysis performed, out of the 13 conclusions valid until RAAC/14, five conclusions were considered completed: 10/1, 12/7, 12/8, 12/10 and 13/8, six conclusions remained valid: 9/5, 11/1, 11/7, 12/4, 12/9, 13/5 and 14/1, and conclusions 11/7 and 12/1 were superseded by conclusions 15/1 and 13/5, respectively.
- 1.4 Upon reviewing Conclusion 11/7, the Meeting felt that it had to be replaced with a new conclusion paper to reflect the current status. Accordingly, it formulated the following conclusion:

Conclusion RAAC/15-1 Fulfilment of the commitment regarding LAR harmonisation

That SRVSOP member States make the necessary efforts to meet the deadlines established by the General Board for LAR harmonisation, and present their results to the JG/31 meeting.

APPENDIX

REVIEW OF VALID CONCLUSIONS OF MEETINGS OF CIVIL AVIATION AUTHORITIES (RAAC)

Concl./ Dec. Strategic Objective	Title of Conclusion/ Decision	Text of Conclusion/Decision	Follow-up Action	To be initiated by	Status	Deliverable	Target date
9/5 A, B	EXCHANGE OF SECONDARY RADAR DATA	That the SAM States assign high priority to the exchange of SSR radar data among adjacent ATC units and develop the necessary bilateral agreements on this matter.	MoUs were established and signed between Argentina-Brazil, Argentina-Uruguay, Argentina-Chile, Brazil-Uruguay, Brazil-Venezuela and Brazil-Peru for the exchange of surveillance and flight plan data in order to increase safety of air traffic control in transfer areas between adjacent ACCs. These MoUs were established between 2010 and 2012. So far, out of the activities contemplated in these MoUs, the radar data exchange between Argentina and Uruguay has been implemented and put into operation, and positive radar data exchange tests have been carried out between Brazil and Venezuela (2015) and between Argentina and Chile (October 2017). The implementation of radar data with Brazil was interrupted because it was not possible to use the asterix 62/63 protocol required by Brazil. Argentina and Peru resumed coordination with Brazil in November 2017	ICAO Regional Office	Valid	Exchange of SSR radar data and flight plans (OLDI and AIDC) implemented	Dec 2018

Concl./ Dec. Strategic Objective	Title of Conclusion/ Decision	Text of Conclusion/Decision	Follow-up Action	To be initiated by	Status	Deliverable	Target date
			for the implementation of radar data interconnection using the asterix 62/63 protocol in view of the fact that their systems were already capable of processing and transmitting those protocols.				
10/1 A	SUBSCRIPTION OF CERTIFICATION RECOGNITION AGREEMENTS	States are urged to facilitate the subscription of certification recognition agreements and to continue making efforts to harmonise and/or adopt* standards and procedures, as a means to strengthen regional safety oversight activities and to avoid duplication of efforts. * For purposes of all the work to be carried out under the SRVSOP within the framework of the "harmonisation" and "adoption" of LARs, the General Board defined the scope of these terms as follows: Harmonisation: Harmonisation is understood to be the set of reforms that must be introduced by the member States of the	RAAC/12 meeting established the Administrative Agreement for the acceptance of aircraft maintenance organizations and aircraft components among the civil aviation authorities of the SRVSOP member States. In this regard, Bolivia, Chile, Colombia, Ecuador and Peru have signed it. Subsequently, 6 more States were included in the AMOs Multinational Technical Cooperation Agreement LAR 145: Argentina, Cuba, Panamá, Paraguay, Uruguay and Venezuela. State pending to sign the AMOs Agreement is Brazil. During RAAC/13 Meeting (Bogota, Colombia, 4 to 6	Civil aviation authorities	The States have established multinational technical cooperation agreements for the acceptance of aircraft and aircraft component maintenance organisations (OMAs), multinational technical cooperation agreement for the certification	SRVSOP standards and procedures harmonized and adopted. Three States are pending to sign the CATC and EAMC agreements. In AMOs, one State is pending. Also the SRVSOP is working in the harmonization for the mutual recognition of licenses. The project, based	November 2017
		Regional System in their national regulations and procedures, based on the LARs and related documents, in order to achieve,	December 2014) Amendment 1 to AMOs Agreement was approved.		of civil aviation training centres (CATCs), and multinational	on Amendment 174 to Annex 1 regarding	

Concl./ Dec. Strategic Objective	Title of Conclusion/ Decision	Text of Conclusion/Decision	Follow-up Action	To be initiated by	Status	Deliverable	Target date
		within a period of time defined by each State and reported to the General Board, an environment in which all States have similar requirements and conditions for the issuance of a certification or aeronautical license, and thus a single certification issued by any Aeronautical Authority of an SRVSOP member State would be acceptable to the other member States. Additional requirements may be established, provided they are reported to other States through an Appendix to the LAR, for consultation by any Aeronautical Authority of the SRVSOP member States at the time of issuing a certificate in this harmonised environment. Adoption: Adoption is understood to be the set of reforms that must be introduced by the members of the Regional System in order to accomplish, in a period of time defined by the General Board, and in an absolutely voluntary fashion, a harmonised environment, without any additional requirements.	In the same Meeting (RAAC/13) the Multinational technical cooperation agreement for the certification of civil aviation training centres (CIAC/CEAC) was signed, among civil aviation authorities of SRVSOP States, signatory of this agreement, based on the certification process report of the SRVSOP multinational certification team". This Agreement was originally signed Argentina, Colombia, Cuba, Ecuador, Paraguay, Peru, and Uruguay. Subsequently Bolivia and Venezuela signed the Agreement. States pending to sign the CIAC/CEAC Agreement are: Brazil, Chile and Panama. In addition, the Multinational technical cooperation agreement for the certification of aviation medical examining centres among civil aviation authorities of the SRVSOP States signatory of this agreement, based on the certification process report of the SRVSOP multinational certification team. This Agreement was originally signed by Argentina, Cuba,		technical cooperation agreement for the certification of examining aeronautical medical centres	automatic validation of licenses, has been delivered for comments to States and the completion of harmonization are foreseen to to be review during the JG/30. On the other hand, the recognition of the multinational qualification of flight simulators is also programmed, thus, the recognition of certifications is an important issue for SRVSOP.	

Concl./ Dec. Strategic Objective	Title of Conclusion/ Decision	Text of Conclusion/Decision	Follow-up Action	To be initiated by	Status	Deliverable	Target date
			Ecuador, Paraguay, Peru, and Uruguay. Subsequently Bolivia and Venezuela signed the Agreement. States pending to sign the CMAE Agreement are: Brazil, Chile, Colombia and Panama.				
11/1 A, B	GRADUAL IMPLEMENTATIO N OF GNSS TECHNOLOGY	That the SAM States gradually implement GNSS technology in keeping with regional PBN implementation programmes and their respective national plan.	SAM States have started GNSS implementation in support to en route, terminal and non precision approach navigation procedures (RNAV 5, RNP APCH, RNP APC AR). Brazil has implemented a GBAS system, currently on pre-operational phase. States will comply with goals established in ICAO Assembly Resolution A37/11 regarding APV procedures.	Civil aviation authorities	Valid	GNSS implementation En route GNSS 65% implemented (5% more than the Declaration of Bogota) A37/11 GNSS 78.6% implemented. Declaration of Bogota goal was 100% implementation by December 2016. It is expected	Dec 2018

Concl./ Dec. Strategic Objective	Title of Conclusion/ Decision	Text of Conclusion/Decision	Follow-up Action	To be initiated by	Status	Deliverable	Target date
						that A/37/11 will be implemented by December 2018	
11/7 A	COMMITMENT TO THE OBJECTIVES OF THE REGIONAL SYSTEM	That the Directors of Civil Aviation of the South American Region reaffirm their commitment to the initiatives of the Regional Safety Oversight System, through: a) Tangible support to its work programme; b) Improving the rate of commitment with the Regional System, as shown in Appendix B to this working paper; and c) Compliance with the target dates defined by the General Board for the harmonisation and/or adoption of the LARs.	a)Work plans and assistance by State experts are duly performed in the various activities of the SRVSOP b)The level of commitment has been traded for the level of LAR harmonisation c)The level of LAR harmonisation for areas: PEL 72%, OPS 63%, AIR Cert 78%, and AIR Ops 73%. The level of harmonisation of AGA and ANS sets still needs to be defined.	States	a)Completed b)Completed c)Valid	Commitment in SRVSOP	Compliance with AIR, OPS and PEL deadlines August 2018 AGA and ANS to be defined at JG/31
12/1 A, B, E	PERFORMANCE- BASED AIR NAVIGATION IMPLEMENTATIO N PLAN FOR THE SAM REGION (SAM PBIP)	The States of the ICAO South American Region and the international organisations involved: a) approve the Performance-based Air Navigation Implementation Plan for the SAM Region shown in Appendix A, for its implementation at regional level;	a) States approved the PBIP. As consequence of the approval of the Global Air Navigation Plan (GANP), fourth edition, the PBIP was amendment to align it with the new GANP edition. b) Some States have started drafting their national plans in alignment with PBIP (Brazil,	States, international organizations, ICAO SAM RO	Superseded by Conclusion 13/5	Approval of PBIP. National implementatio n plans aligned with PBIP. RLA/06/901	

Concl./ Dec. Strategic Objective	Title of Conclusion/ Decision	Text of Conclusion/Decision	Follow-up Action	To be initiated by	Status	Deliverable	Target date
		b) encourage those States that have not done so to prepare their national performance-based air navigation plan in accordance with the guidelines contained in the cited implementation plan; and c) request the ICAO South American Regional Office to review Project RLA 06/901 in order to align it with the performance objectives established in the cited implementation plan.	Chile, Colombia and Venezuela). c) Amendment of Project RLA/06/901 has been completed in alignment with PBIP.			project aligned with PBIP.	
12/4 A, B	STRATEGY FOR THE INSTITUTIONA- LIZATION OF REDDIG AND SRVSOP	That, with the aim of giving continuity to the implementation of the Air Navigation and Safety Organization, the activities taken under consideration in the strategy shown in Appendix A be implemented.	The activities in the strategy will be considered at the RLA/03/901 (REDDIG) and RLA/99/901 (SRVSOP) RCC meetings. Meanwhile, States have agreed that the coordination of the indicated projects continue through ICAO. Project document RLA/03/901 (REDDOG), Version Q, approved ICAO management until 2018. Likewise with project RLA/99/901 (SRVSOP).	ICAO, States	Valid	Strategy for the institutiona- lization of REDDIG and SRVSOP	Dec 2018

Concl./ Dec. Strategic Objective	Title of Conclusion/ Decision	Text of Conclusion/Decision	Follow-up Action	To be initiated by	Status	Deliverable	Target date
12/7 A	ACTIONS TO PROMOTE THE EFFECTIVE IMPLEMENTATIO N OF SAFETY MANAGEMENT SYSTEMS	That the States of the Region, in order to achieve an effective implementation of safety management systems: a) make the necessary efforts to assign human and material resources to SSP; b) use the results of the SSP analysis to define safety risk mitigation policies; c) avoid designating SSP coordinators on an ad-hoc basis; d) support the participation of their SSP coordinators in the cycle of SSP seminars/workshops to be scheduled by the Regional Office in the years 2012 and 2013; e) request their SSP coordinators to develop a short and concise annual safety report covering the following aspects: - an executive report; - reactive information analysis; - proactive information analysis; f) present the results of their annual safety reports at the SSP seminar/workshops to be organised by ICAO South American Regional Office; and g) regarding items c) and f), the	Starting in 2013, the SAM Office created the SSP implementation meeting, the fifth meeting of which, held in Lima, Peru, on 7-11 November 2016, reviewed the level of implementation of SSP in SAM States. At said meeting, some States showed greater progress than others. Accordingly, it agreed to start implementation of the programme, beginning with the first element of the first SSP implementation phase and to seek a mechanism for all States to move forward at the same time. In this regard, Bolivia, Chile, Colombia, Ecuador, Panama, Peru and Venezuela expressed their intention to participate in a pilot project for the implementation of SSP by the end of 2018. Colombia joined the pilot project after completing the USOAP CMA audit conducted on 5-15 June 2017. The pilot project for the implementation of SSP in SAM States was launched on 16 March 2017, with the seven (7) aforementioned States.	States	Completed. A new strategy was established at the Fifth SSP implementation meeting that supersedes the actions contemplated in the conclusion.	State safety management system implemented	Dec 2016

Concl./ Dec. Strategic Objective	Title of Conclusion/ Decision	Text of Conclusion/Decision	Follow-up Action	To be initiated by	Status	Deliverable	Target date
		different working groups that were being organised should be harmonised to avoid duplication of efforts and resources.	Subsequently, Guyana applied to join, thus becoming the eighth member country of the pilot project.				
			The objective of the pilot project is to develop model legislation, regulations, guidance material, processes, mechanisms and systems related to safety management to support SAM States in SSP implementation for a period of two years.				
			The pilot project includes fifteen (15) projects and one (1) general project to be developed until the end of 2018, which will ensure the implementation in the eight (8) aforementioned States and in other SAM States willing to participate therein.				
12/8 C	SUPPORT TO THE ICAO/LACAC NAM/CAR/SAM AVIATION SECURITY AND FACILITATION REGIONAL GROUP	That the States make their utmost to support the work being carried out by the ICAO/LACAC NAM/CAR/SAM Aviation Security and Facilitation Regional Group, giving facilities to the designated officers for conducting the activities of the projects of the ICAO/LACAC NAM/CAR/SAM Aviation Security and Facilitation	ICAO/LACAC NAM/CAR/SAM AVSEC/FAL RG/3 meeting was held in the ICAO SAM RO, from 19 to 21 June 2013. States took note on the need to provide support to the Aviation Security and Facilitation Regional Group.	States	Completed	Aviation security and facilitation activities implemented	Dec 2016

Concl./ Dec. Strategic Objective	Title of Conclusion/ Decision	Text of Conclusion/Decision	Follow-up Action	To be initiated by	Status	Deliverable	Target date
		Regional Group.					
12/9 A, E	REGIONAL CONTINGENCY PLAN TO ADDRESS NATURAL DISASTERS AND/OR CATASTROPHIC EVENTS	That ICAO, in cooperation and coordination with the States of the South American Region, develop a Regional Contingency Plan to address natural disasters and/or catastrophic events, with a view to minimising the impact on civil aviation and restore the operation of air navigation and airport services as soon as possible.	The regional contingency plan has not been completed. Only a guide in support of the Region has been prepared in the event of a volcanic ash contingency.	ICAO	Valid	Regional contingency plan to address natural disasters and/or catastrophic events.	July 2018
12/10 A, B	SAM ATS ROUTE NETWORK OPTIMISATION PROGRAMME (ATS/RO)	That, taking into account the significant fuel savings and the reduction in CO2 emissions into the atmosphere as a result of the phased implementation of the ATS route network optimisation programme, it is essential to continue supporting the implementation of the subsequent phases of the ATS/RO programme in order to improve efficiency and environmental protection in the South American Region.	optimisation programme is being coordinated through ATS/RO meetings. To date, 8 meetings have been held (the last one in Lima, Peru, on 11-15 September 2017), through which the goal established in the Declaration of Bogota (60% implementation of optimised PBN routes) was exceeded	States	Completed The programme for ATS route optimisation using PBN procedures is proceeding satisfactorily in the SAM Region, and ATS/RO conducts effective monitoring in order to coordinate implementation as needed.	SAM ATS routes optimized	Dec 2016 (60% of the ATS optimized routes implemented)

Concl./ Dec. Strategic Objective	Title of Conclusion/ Decision	Text of Conclusion/Decision	Follow-up Action	To be initiated by	Status	Deliverable	Target date
13/5 A, B, E	SAM PERFORMANCE- BASED NAVIGATION IMPLEMENTATIO N PLAN (SAM PBIP) AS ALIGNED WITH THE ASBU	That the States of the ICAO South American Region and the international organisations involved: a) approve the SAM performance-based navigation implementation plan (SAM PBIP) as aligned with the ASBU for its regional application, as shown in Appendix A to Agenda Item 4 of the RAAC/13 meeting; and b) encourage those States that have not done so yet to amend their national performance-based air navigation plans in accordance with the guidelines contained in the aforementioned SAM PBIP.	Approved the SAM Performance-Based Navigation Implementation Plan (SAM PBIP) aligned with ASBU Follow up so that States complete the update of the air navigation national plans to be aligned with ASBU.	States	a) Completed b) Valid To date Brazil, Chile, Colombia and Venezuela has developed its national plans aligned with ASBU	SAM Performance- Based Navigation Implementatio n Plan (SAM PBIP) aligned with ASBU approved. Performance- based air navigation national plans to be aligned with SAM PBIP	a) Completed b) July 2018
13/8 A	IMPLEMENTATIO N OF AIR NAVIGATION AND SAFETY OVERSIGHT PRIORITIES	That the States of the SAM Region implement the air navigation a and safety oversight priorities in accordance with the regional goals agreed for the period 2014 – 2016 in the Bogota Declaration and that the International Organizations support the implementation of the States' priorities.	Follow up air navigation and safety implementation by the States of the Region in accordance with the goals of 2014-2016. PBN: SAM route network optimisation 65% implementation (5% more than the goal of the Declaration of Bogota); SIDs/STARs: 72.9% (October 2017) goal 60%	States	Completed The unmet goals established in the Declaration of Bogota are being contemplated for the period 2017-2019, as presented in the RAAC 14 meeting	Implementation of air navigation and safety priorities.	Dec 2016

Concl./ Dec. Strategic Objective	Title of Conclusion/ Decision	Text of Conclusion/Decision	Follow-up Action	To be initiated by	Status	Deliverable	Target date
			 APV A37/11 78.6% (October 2017) goal 100% CCO/CDO (26% and 34% implementation respectively (October 2017) goal 40% 93516 tons of C02 saved during the period 2014- 2017 ATFM: FMU/FMP: 63% of implementation by October 2017 AIS to AIM AMHS Interconnection implementation 58% (October 2017) goal 100% AIDC 40% (October) goal 100% IP National networks 62% (October) goal 80% Safety Effective implementation level 78.56% (November 2017) goal 80% of effective implementation (EI); Certified aerodromes 26% (27 aerodromes out of 104 international aerodromes). The goal established in the Declaration of Bogota is exceeded by 6% 				

Concl./ Dec. Strategic Objective	Title of Conclusion/ Decision	Text of Conclusion/Decision	Follow-up Action	To be initiated by	Status	Deliverable	Target date
			Accident rate in the SAM Region (2016) 2.71%; global accident rate 3.74%. The goal was to reduce by 50% the gap between the SAM accident rate and the global rate. Although the rate increased significantly in 2016 from 1.03 in 2015 to 2.71, the goal set in the Declaration of Bogota was met this year. Accident rate due to runway excursions (RE) (2016): 1.05. The goal was to reduce by 20% the accident rate in the SAM Region with respect to its average rate 2007-2012. The goal set in the Declaration of Bogota was fulfilled this year.				
14-1 A	IMPROVE THE EFFICIENCY IN THE CERTIFICATION AND OVERSIGHT OF APPROVED MAINTENANCE ORGANIZATION	That actions be initiated through SRVSOP, for the identication of efficiencies among FAA, EASA and the SRVSOP in the processes of certification and oversight of approved maintenance organisations, thus avoiding	During the Fourth Air Navigation and Flight Safety Directors Meeting (AN&FS/4), the FAA from United States of America, expressed interest in attending as observer, to the multinational certifications or surveillance inspections that the SRVSOP carries out in the	Member States of the SRVSOP	Valid	OMAs multinational agreements	December 2017

Concl./ Dec. Strategic Objective	Title of Conclusion/ Decision	Text of Conclusion/Decision	Follow-up Action	To be initiated by	Status	Deliverable	Target date
		duplication of efforts	OMAs of the South American Region to understand the process. On this respect the Meeting agreed to allow the participation of the FAA in the certification or surveillance tasks in the multinational framework of the SRVSOP.				

Agenda Item 2: Global and regional civil aviation requirements and challenges

- 2.1 Under this Agenda Item, the following working papers were presented:
 - ➤ WP/03 Results of the analysis made by the A39 of working papers prepared by the SAM Region (presented by the Secretariat).
 - ➤ WP/04 *Results of the Second global aviation cooperation symposium* (Presented by the Director of the ICAO Technical Cooperation Bureau)
 - ➤ WP/13 Proposed Global strategy and action plan for the improvement of regional safety oversight organizations (RSOOs) (presented by the Secretariat).
 - ➤ WP/18 Summary of A39 Resolutions related to the environment (presented by the Secretariat).
 - ➤ WP/24 Project LOON Floating cell phone towers in the sky (presented by CANSO)
 - ➤ WP/26 Results of the Second Global Runway Safety Symposium (presented by the Secretariat)

Follow-up to the results of the 39th Session of the ICAO Assembly (A39)

- 2.2 The Meeting took note that, as a result of regional preparation for the A39, 8 working papers had been prepared by SAM State representatives, which were discussed and endorsed by all the States of the Region. These papers contributed to a certain extent to the important results obtained.
- 2.3 The main results include:
 - Support to the work being carried out by the South American AIG Regional Cooperation Mechanism (ARCM), international recognition and possible funding to strengthen it.
 - Postponement of the date of introduction of 91 additional questions on the SSP in the ICAO audit programme, from 1 January 2018 to 1 January 2020.
 - Incorporation of suggestions to Amendment 1 to Annex 19 regarding the protection of safety information.
 - Request for ICAO to review the classification of accidents in its Regions. In this sense, it was felt that, based on the needs of South American States, the Council should contemplate the development of an accident and incident data validation and classification system at State or regional level.
 - Recognition and broad support by the participants of the A39 to multinational certifications of the SAM Region.
 - The Council should closely monitor the implementation of the policies and decisions adopted for improving the efficiency and efficacy of activities related to language services, recognising that multilingualism is a fundamental principle in the attainment of ICAO objectives.
- 2.4 The Meeting agreed that, in view of the positive results obtained from the joint presentation of working papers at the A39, this same modality should be applied for subsequent Assembly sessions, as well as for ICAO symposia, conferences and international meetings.

- Likewise, the Meeting felt that it was important for SAM States to follow up on the resolutions formulated by the A39 and the resolutions still pending implementation from other assemblies, and take action as specified therein, putting special emphasis on the results of the A39 regarding the working papers prepared in the Region with the support of all its States, and to being consistent with the decisions adopted, especially when preparing a response to ICAO consultations on proposals for the adoption or amendment of annexes or documents, or other actions. To the extent possible, these responses should be prepared together with all the States of the Region, under the coordination of the ICAO Secretariat. Outstanding Assembly resolutions (as of 6 October 2016), Doc 10075, are posted on https://www.icao.int/Meetings/a39/Documents/Resolutions/10075 es.pdf
- 2.6 In this sense, the Meeting formulated the following conclusion:

Conclusion RAAC/15-2 Preparation for subsequent ICAO Assembly sessions and international events, and actions and follow-up to the results obtained at these events

That SAM States:

- a) continue participating actively at subsequent ICAO Assembly sessions and international events (conferences, symposia, and meetings);
- b) prepare, duly in advance, working papers in coordination with all the States of the Region, the ICAO SAM Office, and LACAC to achieve the coordination of support with all American States and other regions worldwide for subsequent ICAO Assembly sessions and other international events;
- c) fulfil the actions specified in outstanding ICAO Assembly resolutions, described in Doc 10075 https://www.icao.int/Meetings/a39/Documents/Resolutions/10075 es.pdf;
- d) analyse and respond to the letters of the ICAO Regional Secretariat, especially those concerning proposals of adoption or amendment of annexes or documents, in a joint manner, under the coordination of the Secretariat, in order to adopt, to the extent possible, a regional stance.
- 2.7 Regarding environmental protection, which is one of the 5 strategic objectives of ICAO, the Meeting took note that three resolutions had been formulated by the A39:
 - a) A39-1: Consolidated statement of continuing ICAO policies and practices related to environmental protection General provisions, noise, and local air quality.
 - b) A39-2: Consolidated statement of continuing ICAO policies and practices related to environmental protection Climate change.
 - c) A39-3: Consolidated statement of continuing ICAO policies and practices related to environmental protection Global market-based measure (MBM) scheme.

- 2.8 These resolutions highlight the need for States to refrain from adopting measures concerning the environment that might affect the orderly and sustainable development of international civil aviation, recognise that standards on noise and CO2 emissions were not conceived for imposing operational restrictions or liens on emissions, or to apply operational restrictions as a first recourse, but only after taking into account the advantages that could be derived from other elements of the balanced approach, and in a way consistent with Appendix E to A39-1, taking into account the possible impact of such restrictions on other airports. They also urged States to prepare or update action plans for reducing CO2 emissions and submit them to ICAO as soon as feasible, if possible by the end of June 2018, and thereinafter every three years, so that ICAO may compile information on the attainment of its global goals.
- Regarding the preparation and submittal of action plans for reducing CO₂ emissions, the Meeting took note that 50% had achieved the goal, the Appendix to this Agenda Item refers. Likewise, so far, SAM States had not decided to join the pilot phase or the first phase of the CORSIA plan. The States should focus on building capacities for the implementation of registration systems, emission units, and MRV systems by 2020, regardless of whether or not the State decided to join CORSIA. At the regional level, an initial environmental plan (SAM ENV plan) was developed as part of the Regional plan for the sustainability of air transport in the SAM Region, focusing on building capacities in the States for drafting action plans and introducing MRV systems, emission units, and emission registration in their national regulations.
- 2.10 In this regard, the Meeting, with a view to contributing to ICAO global environmental protection goals, formulated the following conclusion:

Conclusion RAAC/15-3 Action plans for CO₂ reduction and accession to the CORSIA Scheme

That, in order to contribute to the global ICAO goals in relation to environmental protection, SAM States:

- a) continue cooperating with ICAO for a better understanding of the effects of emissions from international aviation on the climate;
- b) consider, if they have not done it yet, the adoption of measures aimed at protecting the environment from emissions from international aviation, and develop their action plans for submission to the Secretariat before June 2018;
- c) consider the development of capacities and the inclusion of MRV systems, emission units, and registration systems into their national regulations to prepare the State for accession to the CORSIA scheme;
- d) contemplate accession to the CORSIA scheme in its first phase, or when the State considers that emission measurement, registration, and reporting systems have evolved enough; and
- e) support the objectives of the SAM Plan related to environmental protection.
- 2.11 The Meeting received updated information on the Loon Project, consisting of a network of free, unmanned, heavy Google balloons flying at high altitude (FL600), the purpose of which was to provide education, investment, remote medical information, and emergency services by expanding the telecommunication and internet capacity of local service providers to areas of the world currently underserved. The Loon project had provided communication support to Puerto Rico and Peru to offset damages caused by natural disasters to their ground infrastructure.

- 2.12 The Meeting also took note of the endorsement received by the Loon Project from the ICAO A39 and the increase in the number of agreements between Google and ICAO member States to formalise the corresponding operational procedures for its safe and efficient operation.
- 2.13 Finally, the Meeting was reminded that, through letter AN13/22.1-16/42 dated 17 June 2016, ICAO had informed on free unmanned balloon operations at high-altitude, presenting an explanatory sheet prepared and distributed by Google on the project, as well as examples of standards and procedures applied by some member States regarding free unmanned balloons, which might serve as models for any State of the Region wishing to sign an agreement with Google.

Results of the main ICAO global aviation cooperation symposia

Second ICAO Global Aviation Cooperation Symposium

- 2.14 The Meeting took note of the results of the Second ICAO Global Aviation Cooperation Symposium held on 11-13 October 2017, in Athens, Greece, mainly focusing on the topic "Managing change: Building a safe and sustainable aeronautical community". This type of symposium was held every two years.
- 2.15 The Meeting took note that this event was an excellent opportunity for civil aviation authorities, airport operators, air navigation service providers, aviation accident investigators, regional bodies, industry, and professionals from the world of aviation, to exchange ideas and best practices and understand the challenges and opportunities offered by aviation development.
- 2.16 This event highlighted the advantages of the ICAO Technical Cooperation Programme, which was an effective tool available to States for reinforcing different areas.
- 2.17 The Meeting took note that the Third Global Aviation Cooperation Symposium would be held in 2019, in a Region still to be defined, and that the participation of the States at this event was highly recommended, since it was a valuable opportunity for drawing lessons that could be capitalised at regional or national level for the benefit of aviation development.

Second Global Runway Safety Symposium

- 2.18 The Meeting then analysed the results of the Second Global Runway Safety Symposium, held in Lima on 20-22 November, with the purpose of exchanging information and best practices to improve runway safety through the effective use of innovative strategies, tools and technologies.
- 2.19 This event served as a forum to analyse the next steps in order to continue addressing runway safety issues, maintaining the downward trend in the number of accidents and fatalities, in preparation for a doubling in air traffic, as expected for the following 15 years.
- 2.20 One of the main results was the publication of the collaborative effort led by ICAO for the Global Runway Safety Action Plan (GRSAP), which was developed to support the safety objectives of the GASP.
- 2.21 In this sense, note was taken of the need to promote the implementation of the Global Runway Safety Action Plan at a regional and national level, through its inclusion in the Safety Module of the SAM Plan, with the purpose of taking steps to improve runway safety using a multidisciplinary and collaborative approach. Likewise, the components or activities required for reducing runway incursions

and excursions, such as the implementation of Runway Safety Teams (RSTs), should be included in the Safety Module of the SAM Plan in order to promote a consistent and collaborative implementation.

Forum on regional safety oversight organisations (RSOO) for global aviation safety

- 2.22 The Meeting then took note of the results of the Forum on regional safety oversight organisations (RSOOs) for global aviation safety, which endorsed the proposed Global Strategy and the action plan for enhancing regional safety oversight organisations (RSOOs) and the establishment of a global system for the provision of safety oversight and, in particular, the study of the proposed new "Global aviation safety oversight system (GASOS)".
- 2.23 The main objective of the GASOS proposal was the implementation of an enhanced safety oversight model to address the challenges faced by existing regional and national models and respond to future challenges. Likewise, this development would also provide the required ICAO frame of reference for the recognition of RSOOs in the provision of effective safety oversight support to States.
- At present, a GASOS Study Group (GASOS-SG) has been established, and is assisting in the GASOS feasibility study to be presented at the Safety and Air Navigation Implementation Symposium (SANIS) December 2017. Furthermore, the action plan also included the creation of a cooperative RSOO platform, whose action plan and terms of reference would be addressed in December 2017, in parallel with SANIS.
- 2.25 On this issue, the Meeting considered that the initiative and the concept were very interesting for the RSOOs of the Region, recognising the great benefits that RSOOs of the Region were providing to the States, but more information was required on their scope and how they would be implemented.
- 2.26 In this regard, France described the European experience with EASA, which was a good example to take into account and which meant an improvement in CAA efficiency. In this regard, it offered to share its experiences with the Region. AIRBUS also described the experience with EASA and offered to share its experiences in this regard.
- 2.27 Likewise, Guyana explained that, in the case of small States, the RSOOs (CASOS, in their case) brought great benefits for the authorities, for example, the availability of competent personnel, which was difficult to obtain, amongst other things.
- 2.28 Following a discussion, the Meeting agreed to support the initiative and concept of the ICAO strategy for the strengthening and improvement of RSOOs, and the GASOS concept. However, before making the decision to support this proposal, more information was required to better understand its scope and sphere of responsibility. Once the analysis conducted by each RSOO of the corresponding information and clarifications is available, support and assistance could be given to the planning and development of this proposal.

 ${\bf APPENDIX}$ Current Status of Action Plans of CO $_2$ Emissions Reduction in the SAM Region

States	Submitted	Date of updated
Argentina	Yes	Feb/2013
Brazil	Yes	Set/2016
Bolivia	No	
Chile	No	
Colombia	Yes	Aug/2012
Ecuador	Yes	Oct/2016
French Guyana	Yes	Jun/2015
Guyana	No	
Paraguay	No	
Panama	No	
Peru	No	
Suriname	No	
Uruguay	Yes	Sep/2017
Venezuela	Yes	Jun/2012

Agenda Item 3: Review of results obtained in the SAM Region on security matters

- 3.1 Under this agenda item, the following working papers and information paper were presented:
 - ➤ WP/05 Implementation of the Universal Security Audit Programme (USAP-CMA) (presented by the Secretariat).
 - ➤ WP/06 Result of the AVSEC training programme (presented by the Secretariat).
 - ➤ WP/07 Reporting on activities of the NAM/CAR & SAM Regional AVSEC/FAL group (presented by the Secretariat).
 - ➤ NE/17 Optimizing Regional Cooperation to advance aviation security (presented by the United States of America).
 - ➤ WP/23 Reporting on activities of the NAM/CAR & SAM AVSEC/FAL regional group on the One-Stop Security (OSS) (presented by the Secretariat).
 - ➤ WP/25 Implementation of the GASeP and the Regional Proposal
 - ➤ IP/06 *IATA Americas aviation security strategy* (presented by IATA).

USAP CMA implementation

- 3.2 The Meeting took note of the status of implementation of the Universal Security Audit Programme Continuous Monitoring Approach (USAP CMA), receiving information on the progress made in the programme and an overview of the activities carried out in the Region.
- 3.3 The Meeting also took note of the contents of the ICAO secure website www.icaonet.com, which offered, *inter alia*, information on the audits conducted to date and audits scheduled for 2018.
- 3.4 The Meeting considered that SAM States should continue supporting the activities of the ICAO Universal Security Audit Programme (USAP-CMA), such as the signing of MoUs, the acceptance of audit dates proposed by ICAO, the submission of updates to corrective action plans, continue providing experts for programme activities, and improve EI (effective implementation) in accordance with the goals foreseen in the GASeP.

Results of the AVSEC training programme

- 3.5 The Meeting took note that ICAO, through the Implementation Support and Development Security section (ISD-SEC), and together with the Regional Offices, provided all member States the opportunity to receive training for the development and/or strengthening of capacities for the implementation of a sustainable national aviation system, through the publication of an annual AVSEC training calendar. This training was provided mainly through the aviation security training centres (ASTCs). The SAM Region has two aviation security training centres: ETAC in Quito, Ecuador, and CIPE in Buenos Aires, Argentina.
- 3.6 In 2017, under the sponsorship of ICAO, the ASTCs of Argentina and Ecuador had trained 18 participants of 7 States.

Idioma	Fecha de Inicio	Fecha de Término	Duración	No. Participantes	Instructores	Estados
SP	Mon 12-Jun-2017	Tue 20-Jun-2017	7	9	Ana María Pineda Rocío Andrade	Brasil, Ecuador, Honduras, Panamá
SP	Mon 27-Nov-2017	Fri 01-Dec-2017	5	9	Eduardo Cerda Osvaldo Azpeitia	Argentina, Colombia, Venezuela

- 3.7 The Meeting took note that consideration was being given to the possibility that, starting in 2018, ICAO-sponsored training be provided at no cost, and in case any of the ASTCs was unable to host the ICAO-sponsored courses or workshops, this could be requested by any interested SAM State that could provide the facilities required for this type of activity.
- As part of the cooperation programme between ICAO and Transport Canada, the Meeting took note that a series of risk management workshops had been conducted and were scheduled for the end of 2017 and early 2018 in the SAM Region. In these workshops, as part of this cooperation programme, ICAO provided all the manuals for the participants, and covered travel and accommodation expenses of the two instructors, and three fellowships for each invited State, which included travel and accommodation for each participant receiving a fellowship. The following chart provides the schedule of risk management workshops for 2017 and beginning of 2018:

	Venue/States	Dates	Language	Scholarship	Remarks
1	Argentina Uruguay Paraguay	20-23 November 2017	Spanish	Paraguay Uruguay	Confirmed
2	Brazil Bolivia Peru	5-8 December 2017 11-14 December 2017 (2 workshops)	Spanish	Bolivia Peru Venezuela Colombia	Confirmed
3	Chile Panama	January/February 2018 (2 workshops)	Spanish	Panama (other States that so request)	Coordinated
4	Colombia Ecuador Venezuela	5-9 February 2018	Spanish	Ecuador Colombia	Confirmed

- 3.9 The Secretariat acknowledged the States for the efforts made in assigning experts to assistance activities in other States, especially Venezuela, which had supported and was supporting several States of the Region with its experts, resulting in significant improvements in their security systems.
- 3.10 The Meeting took note of the aviation security training packages (ASTPs) available from ICAO Headquarters, which could be purchased from ICAO Headquarters, and were posted on the ICAO ASTC secure website https://portal.icao.int/ASTC/Pages/default.aspx
- 3.11 The Meeting also agreed that it was important to continue supporting the ICAO AVSEC and facilitation training programme through the participation of delegates of SAM States in seminars, courses and workshops, generating a multiplying effect in their States, and to support the "ICAO/Canada Grant Agreement for the Americas", by using the fellowships offered by ICAO, and hosting courses/workshops when offered to them.

Activities of the NAM/CAR & SAM AVSEC/FAL regional group

3.12 The Meeting considered the possibility of analysing the work done by the ICAO/LACAC AVSEC/FAL/RG from a regional perspective.

- 3.13 Information was provided on the work being carried out by the AVSEC/FAL/RG and its importance for the Region. Reference was made to the Facilitation training material developed by the AVSEC/FAL/RG, which was available to interested States, and to the cyber-security workshop to be conducted in Jamaica.
- Likewise, the Meeting took note that the Group had developed and updated at its last meeting (AVSEC/FAL/RG/7) a workshop on "Identification of persons with suspicious behaviours". So far, the workshop had been delivered at the CIPE of Argentina, Panama, Peru, and Venezuela, with excellent results. It should be noted that the feedback from participants had been very positive. The workshop was available to States interested in receiving such training.
- 3.15 This training material to be delivered in the States of the Region, could be requested through the Regional Office.
- 3.16 Furthermore, it urged the appropriate aviation security (AVSEC) and facilitation (FAL) authorities of the NAM/CAR and SAM States to support their AVSEC and FAL units/representatives in order to ensure active and engaged participation in AVSEC/FAL/RG activities for the benefit of their own States, and study the possibility of applying OSS to improve connectivity between the States of the Region.
- 3.17 Mention was made of the need for guidance material for conducting quality control activities in the States. Note was taken of the need to present a working paper on the application of a system of sanctions to support the implementation of programmes and regulations in the States.

GASeP implementation and the regional proposal

- 3.18 The Meeting took note of the progress made with respect to the Global aviation security plan (GASeP) and its future activities.
- 3.19 The Meeting considered the need to conduct the GASeP implementation study through the ICAO/LACAC NAM/CAR/SAM Regional aviation security and facilitation group, and to update its Strategic Plan to align it with the GASeP roadmap (living document), which proposed 94 tasks accompanied by 32 actions within the framework of 5 priority results, set forth as global objectives for the next triennium. It also agreed that the States of the Region should support the GASeP and participate through their experts and delegates at the various activities to be carried out on this matter. Therefore, the Meeting formulated the following conclusion:

Conclusion RAAC/15-4 Alignment of the AVSEC/FAL/RG Strategic Plan with the GASeP

That the Secretariat coordinate the necessary actions for aligning the AVSEC/FAL/RG Strategic Plan with the GASeP, and present it at the AVSEC/FAL/RG/8 meeting.

Optimisation of Regional Cooperation

- 3.20 The Meeting took note of the importance that States participate in the development and implementation of new security standards to fight acts of unlawful interference against civil aviation, highlighting the importance of especially preventing possible acts of unlawful interference caused by improvised explosive devices (IEDs) and working with collective resources, coordinating at regional level to expedite the implementation of such measures.
- 3.21 Consideration was given to the importance of analysing the existing capacity of States to meet the new security requirements set forth in amendment 16 of Annex 17, and sharing the best practices of their States, making use of any opportunity or mechanism to share resources to fill the

capacity gaps identified in the States in terms of technology and procedures for identifying the presence of explosives and explosive devices, and to build the capacity to support continuous improvement of effective and sustainable implementation of security measures in the States of the Region.

Report on the activities of the NAM/CAR & SAM AVSEC/FAL RG panel on one-stop security (OSS)

- 3.22 The Meeting took note of the objectives of the process of recognition of equivalence of security checks amongst States, highlighting the benefits of one-stop security (OSS) for States.
- 3.23 Likewise, the Meeting considered the possibility of conducting a study of the benefits of OSS implementation in the Region, as a tool to improve connectivity in the Region. Therefore, the Meeting formulated the following conclusion:

Conclusion RAAC/15-5 Implementation of OSS

That the Authorities continue striving to implement OSS, taking into account that it is a useful and necessary tool for improving connectivity, and present their results at the AVSEC/FAL/RG/8 meeting.

3.24 Note was taken of the IP submitted by IATA on the aviation security strategy in the Americas.

Agenda Item 4: Follow up to the implementation of safety and air navigation regional priorities:

- a) Safety implementation priorities
- b) Implementation priorities of air navigation improvements
- 4.1 Under this agenda item, the following working and information papers were presented:
 - ➤ WP/08 Status of Implementation of Air Navigation Improvement Priorities (presented by the Secretariat)
 - ➤ WP/09 Status of Implementation of Safety Improvements (presented by the Secretariat)
 - ➤ WP/10 Updating Of The Sam Performance-Based Air Navigation Implementation Plan (presented by the Secretariat)
 - ➤ WP/14 Automatic Dependent Surveillance Broadcast (ADS-B) Out: Ensuring Preparedness for the 2020 Equipage Mandate (presented by United States)
 - ➤ WP/15 Safety Module of the SAM Plan (presented by the Secretariat)
 - ➤ WP/16 CANSO ATFM Data Exchange Network for the Americas (CADENA) (presented by CANSO)
 - ➤ WP/19 CAR/SAM Regional Air Navigation Plan Volume III (Document 8733 EANP) (presented by IATA)
 - ➤ WP/20 PBN Implementation In SAM Region (presented by IATA)
 - ➤ WP/21 Implementation of ICAO's Policies on Charges in Doc 9082 (presented by IATA)
 - ➤ WP/28 XMAN: A concept taking advantage of ATFM cross-border exchanges (presented by France)
 - ➤ IP/03 Global Trajectory Based Operations (presented by United States)
 - ➤ IP/04 FAA's "Portal for International Pilot Deviations," Electronic Referral of Enforcement Cases (English only) (presented by United States)
 - ➤ IP/05 FAA'S Take-Off and Landing Performance Assessment (TALPA) (presented by United States)
 - ➤ IP/07 Air Navigation Plan for Colombia (ANP COL) (presented by Colombia)
 - ➤ IP/08 Status of performance-based navigation (PBN) implementation (presented by France)
 - ➤ IP/09 Management of small drone operations (presented by France)
 - ➤ IP/10 Risk-based oversight (RBO): Concept, benefits and best practices (presented by France)
 - ➤ IP/11 Collaborative aerodrome safety hotspots (CASH) (presented by France)

Safety implementation priorities

4.2 The Meeting took note of the status of implementation of safety improvements related to the goals established in the Declaration of Bogota, with respect to safety oversight; accidents; runway excursions; aerodrome certification; and the State safety programme (SSP) / Safety management system (SMS).

Safety: Achieve 80% effective implementation (EI) in the SAM Region

4.3 From November 2011 to November 2017, ICAO held 4 CMA audits, 14 coordinated validation missions (ICVMs), 4 off-site monitoring activities and one (1) integrated validation activity (IVA) in the SAM Region. The average for the SAM Region increased from 66.28% to **78.56%** (+12.28%), which shows that the SAM Region is improving its EI at an annual rate of **1.75%**.

Accidents: Reduce the gap between the accident rate of the SAM Region and the global accident rate by 50%.

The rate of accidents in South America for scheduled commercial air transport operations with aircraft over 5 700 kg has been gradually decreasing since 2009, reaching a rate of **1.03** accidents per 1,000,000 departures in 2015, way below the global rate of **2.78**. There was a significant increase in the number of events in 2016, raising the accident rate to **2.71**. However, this rate remained below the global rate of **3.74** for second consecutive year. As of November 2017, the rate of the Region was **1.54**, placing the Region slightly below the global rate of **1.56**. Accordingly, the goal of the Declaration of Bogota continues to be met.

Runway excursions: Reduce the rate of runway excursions by 20% with respect to the average rate of the SAM Region (2007-2012).

4.5 The average rate of runway excursions between 2007 and 2012 was 2.24 accidents per million departures. The 20% reduction established as a goal represents 1.8 accidents per million departures. Throughout 2016 and in 2017, the rate remained stable at 1.05, and thus the goal established in the Declaration of Bogota continues to be met.

Aerodrome certification: Achieve 20% of aerodromes certified by the end of 2016

- 4.6 So far, **26%** of aerodromes have been certified, exceeding the established goal. Nevertheless, at the Third meeting of Air Navigation and Flight Safety Directors (AN&FS3), the States highlighted that the regional goal of 20% of international aerodromes certified was too broad and did not indicate the specific contribution of each State to this goal, thus making it necessary to make some adjustments in this regard.
- 4.7 In this regard, Chile noted that it currently had 4 airports certified, and 4 more would be certified in 2018 so as to complete 100% of its international aerodromes. Paraguay expressed its intention to certify two aerodromes in 2018.

State safety programme (SSP) / **safety management system (SMS):** 67% of SSP implementation; and 100% capacity to oversee the SMS of service providers

- 4.8 Upon analysing the status of implementation of the SSP in SAM States, the Fifth SSP Implementation Meeting, held in Lima, Peru, on 7-11 November 2016, agreed to implement the programme starting from the first element of the first SSP implementation phase, and to seek a mechanism for all States to move ahead at the same time. In this regard, a pilot project for SSP implementation was launched on 16 March 2017, through the end of 2018, with the participation of Bolivia, Colombia, Chile, Ecuador, Guyana, Panama, Uruguay, Peru, and Venezuela. Appendix B to WP/09 shows the progress made by States and the list of elements submitted to the SAM Office with respect to implementation Phase 1.
- 4.9 Once the SAM States have implemented the SSP, the SMS will be measured in each of them.

- 4.10 In this regard, Paraguay noted that, although it was not part of the SAM SSP pilot project, it had made progress in said implementation and, according to its roadmap, the timetable for Phases 1, 2 and 3 coincided with the timetable established in the pilot project.
- 4.11 Furthermore, it noted that an important component in SSP activities was the AIG Regional Cooperation Mechanism (ARCM), which had made significant progress in increasing the level of AIG compliance through collaboration and the resources of several States. The AIG is an important source of safety intelligence with reactive information.

SAM safety plan (SAMSP)

- 4.12 The Meeting was then presented with the proposed *Safety module of the Regional plan* for the sustainability of air transport in the SAM Region (SAMSP), which was developed in accordance with Resolution A39-12 with regard to the drafting and execution of regional, sub-regional and national safety management implementation plans.
- 4.13 The SAMSP has been developed taking into account the last revision of the GASP, and follows a preventive strategy for improving safety performance in the South American (SAM) Region. The preventive safety strategy is based on three main priorities:
 - improvement of effective implementation (EI) at State and regional level;
 - implementation of the State safety programme (SSP); and
 - > reduction of the rate of accidents in all aviation segments, regardless of aircraft weight and type of operation.
- 4.14 The end objective of the plan is to save as many human lives as possible, reducing the rate of accidents in all aviation segments to a minimum acceptable level. The plan establishes the criteria and guidance required for the development of State safety plans in terms of the safety policy and objectives and safety performance indicators, with their respective goals and alert levels.
- 4.15 The plan also provides planning and implementation criteria and guidance concerning implementation tools; planning levels; role of stakeholders; coordination procedures between the RASG-PA and the SAM Office; indicators and metrics to assess the attainment of objectives and goals; amongst others.
- 4.16 In this sense, the Meeting considered the SAMSP safety module as an initial reference to be analysed and reviewed by the working group tasked with reviewing the SAM plan.

Risk-based oversight (RBO)

4.17 France made available to the Meeting a paper (IP/10) on the concept and benefits of risk-based oversight (RBO). The CAAs need to apply risk management concepts, based on risk identification, and measure performance and compliance, in order to optimise resources for greater safety impact. In this regard, the Secretariat noted that the SRVSOP had scheduled an RBO workshop for 2018, in which Transport Canada, England, and the SRVSOP would present their experiences, and the DGCA of France was invited to participate.

Collaborative exchange of safety data at an aerodrome (CASH concept)

4.18 Finally, France made available to the Meeting information on the creation of a platform for sharing safety data related to the aerodrome (IP/11), to which end tests called CASH (collaborative aerodrome safety hotspots) had been established to provide commercial aviation and general aviation pilots information on the main threats at an aerodrome. This was the result of collaborative work amongst all apron operators, in which they had analysed and compared data from their SMS.

Implementation priorities of air navigation improvements

4.19 The Meeting took note of the status of implementation of priorities in air navigation improvements as stated in the Declaration of Bogota for 2014 -2016, as well as those planned for the period 2017-2019 concerning PBN, ATFM, AIM, MET, and CNS.

PBN implementation

- Regarding PBN implementation, en-route PBN has reached 65% implementation to date, exceeding by 5% the goal established in the Declaration of Bogota. Regarding PBN SIDs/STARs, 72.9% implementation has been reached, exceeding by 12.9% the goal of the Declaration of Bogota. With respect to continuous descent operations (CDO) and continuous climb operations (CCO), 34% and 26% implementation has been reached, respectively, which are below the 40% implementation goal contemplated in the Declaration of Bogota. And regarding compliance with ICAO Resolution A37-11 on the implementation of APV approaches, 78.6% has been achieved, which is below the 100% goal contemplated in the Declaration of Bogota.
- 4.21 The Meeting urged SAM States and the SAM Regional Office to continue prioritising PBN implementation, in accordance with the GANP and the PBN operational concept for SAM airspace, with a view to achieving a safer and more efficient airspace in the SAM Region.
- 4.22 The Meeting also urged the SAM Regional Office to develop, with the support of States and IATA, key performance indicators to measure the benefits derived from PBN implementation in the SAM Region.
- 4.23 Likewise, in order to have a more efficient implementation of PBN in the SAM Region, it would be advisable to use a set of key performance indicators to identify the objective benefits derived by airspace users and air navigation service providers from PBN implementation.
- 4.24 The Meeting took note of the plans of France, including the French Antilles and French Guiana, regarding the implementation of PBN in the en-route, terminal, approach, and landing phases. France also informed of its plans to decommission conventional radio navaids, foreseeing the decommissioning of 49 ILS, most of them located at small or medium-sized airports, by the end of 2017. DMEs would be maintained to support the RNAV-5 and RNAV-1 PBN procedure in case of failure.
- Regarding the reduction of C02 emissions between January 2014 and December 2016, it has been estimated, using the IFSET tool, that the set of airspace improvements in SAM States resulting from the implementation of PBN to realign regional routes and the implementation of standard RNAV/RNP departure and arrival routes in terminal control areas has allowed for a reduction in CO2 emissions in the order 211,098 tonnes, 51,132 of which correspond to 2014, and 74,483 and 85,483 to 2015 and 2016, respectively. Accordingly, the goal established in the Declaration of Bogota of reducing 40,000 tonnes of CO2 emissions per year by 2016 has been exceeded.

4.26 As an initiative supplementary to en-route airspace optimisation, letters of agreement have been signed between SAM States for the application of a longitudinal separation minimum of 40 NM, as a first stage leading to the implementation of a standard longitudinal separation minimum of 20 NM as per Doc 4444 PANS ATM, for aircraft equipped to receive DME distance and/or GNSS distance data in continental airspace.

ATFM implementation

4.27 The status of implementation of air traffic flow management (ATFM) in SAM ACCs shows 63% implementation. The goal of the Declaration of Bogota by the end of 2016 was 100% implementation of flow management positions (FMPs) or flow management units (FMUs).

AIM implementation

- Regarding the status of implementation of steps related to Phase 1 of the Roadmap for the transition from AIS to AIM, out of the four steps contemplated in the first phase (Consolidation), the one on the implementation and certification of a quality management system (QMS), has experienced delays in some States. To date, delays have been experienced in Bolivia, Guyana, and Suriname. Likewise, Colombia, Ecuador, and Venezuela should make additional efforts to complete QMS/AIM implementation, since they are already at a very advanced stage.
- Regarding implementations contemplated for the period 2017-2019, progress has been made in the implementation of AIXM, within the AIM area, but not as much as expected. However, regarding e-TOD, the progress made in Argentina, Brazil, Paraguay, and Chile does not cover all international airports, and some concern has been expressed, even more so since the standard is effective since 12 November 2015. Furthermore, regarding the implementation of the digital NOTAM, it is scheduled to start in 2019.

MET implementation

4.30 Regarding the MET area, there are opportunities for improvement in QMS/MET implementation in five States (Bolivia, Ecuador, Guyana, Uruguay, Venezuela). Progress has been made in the implementation in these States, reason why the Secretariat encourages these States to complete QMS/MET implementation in 2018. MET personnel competencies continue to be a deficiency in some States, hindering completion of QMS/MET implementation. Another point of concern is the absence of procedures in the event of release of radioactive material in SAM States.

CNS implementation

4.31 Regarding the implementation of CNS systems, priority has been assigned to the implementation of AMHS interconnection, AIDC interconnection, and the implementation of national IP networks.

Implementation of AMHS interconnection

4.32 Significant progress has been made during the last year in the operational implementation of AMHS interconnections between Peru and Venezuela (November 2017), Brasilia and Bogota (May 2017), Brasilia and Montevideo (September 2017), Lima and Santiago (December 2016), the implementation and commissioning of the AMHS interconnection between the Brasilia MTA and the Madrid MTA (September 2017), which is the first AMHS interregional interconnection in the SAM Region, and the AMHS interconnection between the Brasilia MTA an the SITA gateway.

4.33 According to the Declaration of Bogota, the goal was to implement at least 26 AMHS interconnections by the end of 2016. To date, 16 AMHS interconnections had been implemented, 11 of which were in the operational phase and the remaining were in the pre-operational phase, waiting for States to migrate to the operational phase. It was expected that by June 2019, the 26 interconnections contemplated in the Declaration of Bogota would be completed, together with the AMHS interconnections contemplated in the CAR/SAM Regional Air Navigation Plan (Doc 8733).

Interconnection of automated systems (ATS interfacility data communication - AIDC)

Regarding the implementation of AIDC exchange between ATS units in the SAM Region, only 6 AIDC interconnections are currently operational between domestic ACCs of Brazil. The Declaration of Bogota contemplated 15 AIDC interconnections. To date, 7 AIDC interconnections have been in the pre-operational phase for more than one year. In view of this long period of time in this phase, the States involved should make the necessary efforts to migrate to the operational phase.

Implementation of national IP networks

4.35 Regarding the implementation of national IP networks, these had been implemented in Argentina, Brazil, Colombia, Chile, Ecuador, Paraguay, Uruguay, and Venezuela, reaching 62%, which was below the 80% goal contemplated in the Declaration of Bogota. 100% implementation was foreseen for the period 2018-2019.

Detailed information on air navigation implementation priorities

4.36 Appendices A, B, C, and D to WP/08 contain detailed information on ATM implementation priorities (PBN and ATFM), AIM, MET and CNS (AMHS interconnection, national IP networks, and AIDC interconnection).

Updating of the SAM Performance-based air navigation implementation plan

- 4.37 The Meeting took note of the updating of the SAM Performance-based air navigation implementation plan as a result of the progress made in the implementation of the services, procedures and equipment planned for the period 2012-2016 to support the growth of air traffic capacity, while maintaining high levels of safety, the fifth edition of the Global air navigation plan (GANP), the initial safety plan of the SAM Region, and other considerations. The plan covers the 2017- 2023 period of implementation.
- The Meeting took note that the ICAO SAM Office had circulated the amended PBIP document to all SAM States, and comments had been received from Chile, Colombia, Uruguay, and Venezuela. Regarding these comments, it was agreed to delete the new chapter 12 related to the environment and SAM regional performance objective ENV from Attachment C, since the Plan for the sustainability of air transport in the SAM Region would include this topic. Likewise, the AIS to AIM Roadmap would be included. Regarding the remaining comments, it was felt that Attachment C and E should remain as they now stand until ICAO publishes the sixth edition of the GANP in 2019. Regarding chapter 11 on safety, it has been simplified, since the Plan for the sustainability of air transport in the SAM Region has a complete module on safety. In this regard, the Meeting approved the update of the SAM performance-based air navigation implementation plan (PBIP version 1.5)

CAR/SAM Regional Air Navigation Plan (Doc 8733 eANP), Volume III

- 4.39 The Meeting took note that part of the documentation contained in the PBIP would be included in Volume III of the CAR/SAM Regional Air Navigation Plan (Doc 8733 eANP), which would also include the part of the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP) corresponding to the CAR Region. This activity was expected to be completed by 2019. In the meantime, the PBIP would be the reference document for performance-based navigation planning, aligned with the ASBU for the SAM Region.
- 4.40 The Meeting deemed it important to hold a workshop/seminar on key performance indicators (KPIs) to support activities for the completion of Volume III of the eANP and the drafting or updating of national performance-based plans. The event was to be held in Lima, on 3-5 September 2018.

Air navigation plan for Colombia (PNA COL)

- 4.41 Colombia informed the Meeting (NI07) that in October 2017 it had published the latest update of the Air Navigation Plan for Colombia (PNA COL). Volume I: Operational requirements, version 08 and Volume II: Facilities and services, version 08, are published for permanent consultation at: http://www.aerocivil.gov.co/servicios-a-la-navegacion/planes-de-navegacion-aerea-para-colombia
- 4.42 This revision of the PNA COL made special emphasis on the alignment of the components of the ATM operational concept with the ASBU. The inputs for this version were: the Global Air Navigation Plan (GANP), the ASBU guide, the CAR/SAM eANP, PBIP version 1.4, ICAO Docs 9854, 9882, 9883, and technical reports.
- 4.43 The Meeting took note of the offer made by Colombia regarding the identification of key performance indicators for Volume III of the eANP, and invited Colombia to participate actively in the workshop/seminar on key performance indicators to be held in Lima, on 3-5 September 2018.

Other considerations on the implementation of safety and air navigation priorities

ADSB mandate in the United States

- 4.44 The Meeting recalled the mandate of the United States FAA regarding the implementation of ADS-B OUT. In this regard, the FAA published a requirement for all aircraft operating within certain airspace to be equipped with ADS-B Out technology by 1 January 2020, in accordance with Title 14 of the US Code of Federal Regulations (14 CFR), sections (§) 91.225 and 91.227.
- 4.45 Likewise, the Meeting took note that the FAA had approved a limited five-year exemption (Exemption 12555), relative to the requirements in § 91.227(c)(1)(i) and (iii), under the following conditions:
 - Each operator applying to an exemption must report it to the FAA.
 - Operators covered by the exemption must develop and implement a plan to equip their aircraft so as to meet the requirements of § 91.227(c) before 1 January 2025.
 - Operators with aircraft equipped with selective availability (SA) Awareness system do not need to conduct pre-flight checks. They are exempt from the performance requirements contained in § 91.225 when it is forecast that the ADS-B Out equipment will not meet the requirements of § 91.227(c)(1)(i) and (iii).

- Operators with aircraft equipped with SA-On system must conduct pre-flight checks. They must operate in airspace specified in § 91.225 when the ADS-B Out equipment does not meet the requirements of § 91.227(c)(1)(i) and (iii) and if the FAA determines that there is a backup means of surveillance. The FAA intends to offer this availability through the SAPT.
- 4.46 The FAA informed that the solutions for equipping aircraft that are mandate-ready could be found in the FAA website http://www.faa.gov/nextgen/equipadsb/adsb_ready/

CANSO air traffic flow management data exchange network for the Americas (CADENA)

- 4.47 The Meeting took note that the CANSO Executive Committee for Latin America and the Caribbean (LAC3) had established in June 2016, an air traffic flow management (ATFM) virtual node network between air navigation service providers (ANSPs) and stakeholders, called CANSO ATFM data exchange network for the Americas (CADENA), to contribute to an orderly, safe and expeditious air traffic flow.
- 4.48 CANSO CADENA members signed an ATFM and CDM Letter of Agreement. This agreement binds signatories to promoting and facilitating safe and efficient air traffic flow in the Region and permits continued operations through ATFM and CDM procedures. The ANSPs participating in CADENA are: COCESNA, DC-ANSP, DECEA (CGNA), EANA, ECNA, FAA, IDAC, Jamaica CAA, SENEAM and Trinidad and Tobago CAA.
- 4.49 The Meeting took note that CADENA held ATFM planning teleconferences every Friday amongst ANSPs, users and international organisations, applying CDM processes. Weather, staffing, sectorisation, restrictions due to equipment failure, special events and airport layout were some of the issues reported and openly discussed amongst CADENA members, airlines, and airports.
- 4.50 On 28 August this year, CADENA officially published the Operational Information System (OIS) website, https://www.cadenaois.org, which provided situational awareness and allowed for the exchange of information on delays and trends, current/planned air traffic management measures, daily plan of operations, restrictions, and a regional traffic management registry. The CADENA OIS was available to airlines, airports, and the general public.
- 4.51 CANSO informed the Meeting that, on 27 October this year, CADENA, in coordination with the ICAO SAM Office, had arranged for the participation of Chile, Colombia, Panama, Venezuela and Uruguay in CADENA, as observers. Said participation provided the ANSPs of South America a better knowledge of the activities that CADENA was carrying out through the weekly ATFM/CDM operational videoconferences.
- 4.52 Finally, the Meeting invited air navigation service providers (ANSPs) that were not members of CADENA to participate in the weekly ATFM/CDM operational planning teleconferences, use and input information and data in the CADENA OIS, which entailed no cost for the ANSPs.

XMAN

- 4.53 The Meeting took note that E-AMAN was a concept developed within the framework of the SESAR (Single European Sky ATM Research) Programme to extend the horizon of conventional AMAN to 550 NM (and provide improved and more consistent arrival sequencing). E-AMAN refers to advance sequencing of air traffic destined for a given airport. The solution extends arrival management coordination beyond the TMA to en-route airspace. This allows controllers to give early instructions to pilots to adjust speed and path before starting the descent to the destination airport, reducing the need to fly the holding pattern at the destination airport.
- XMAN is derived from the extended AMAN concept, the purpose of which is to develop arrival management processes and capabilities in the cross-border context in order to absorb delays more ahead of time and at a higher altitude. XMAN has a long-range component: a planning horizon of up to 550 NM. This component has ATFM- and ATC-type elements (speed reduction, time at a fix, etc.) and is mainly based on time. This allows for the application of techniques for delay distribution amongst TMA, extended TMA and en-route sectors. XMAN provides air traffic controllers operational restrictions tailored to ATC sector capacity.
- 4.55 The Meeting took note that the air navigation service provider of France, DSNA, had participated from the beginning in the development of the XMAN concept, in collaboration with Ireland and Great Britain, and was currently a provider and a beneficiary of XMAN as a service to help optimise cross-border operations within the central European zone.
- 4.56 In this sense, DSNA informed the Meeting of its willingness to share the XMAN implementation experience with SAM States. In this regard, the Meeting invited DSNA to participate in the next SAM/IG implementation meeting (SAM/IG/21), to be held in May 2018, to present the concept to the SAM ATFM group.

Implementation of ICAO policies contained in Doc 9082

- 4.57 The Meeting took note of the concern of IATA regarding the adoption by States of the policies on charges contained in Doc 9082 as a priority measure for the period 2018-2020 and its four key charging principles: non-discrimination, cost-relatedness, transparency, and consultation with users, in order to ensure compliance thereof by airports and ANSPs.
- 4.58 The Meeting took note that, during the period 2016-2017, consultations had been organised between various service providers and airlines to monitor the implementation of the 4 principles. These consultations between service providers and airlines had taken place in Argentina, Brazil and Peru, with significant results. Accordingly, the Meeting agreed to continue further the implementation of ICAO principles on tariffs.
- 4.59 Likewise, after discussing the application of Doc 9082 and the economic assessment of air navigation service providers and aerodrome operators to be conducted by the Authorities, the Meeting formulated the following conclusion:

CONCLUSION RAAC/15-6 Strengthening CAA competencies in the concept of economic assessment of ANSPs and aerodrome operators

That the Secretariat:

- a) start activities for the development of the strategy for strengthening the competencies of civil aviation administrations in the concept of economic assessment of air navigation service providers (ANSPs) and aerodrome operators and present a preliminary document by mid-2018;
- b) for the development of the strategy, conduct an analysis of the current status of implementation of the guides contained in Doc 9082 in the States;
- c) carry out this activity with a collaborative approach and with the support of all the States of the Region, through the designation of the corresponding focal points by 31 January 2018, the LACAC Secretariat and IATA.

Trajectory-based operations (TBO)

4.60 The Meeting took note that the FAA (IP/03) was in a phase of transition in its national airspace system (NAS) from a traditional surveillance and separation structure, based on the location of the aircraft, to a time management system, through trajectory-based operations (TBO). TBO is a very important implementation for the FAA within the NEXTGEN programme, involving pilots, controllers, air traffic managers, airlines and other operators. TBO is aligned with various components of the ICAO ATM operational concept (Doc 9854), such as traffic synchronisation, conflict management, and demand/capacity balancing.

International pilot deviations (PIPD)

4.61 The United States presented to the Meeting (IP/04) the progress made in the international cooperation proposal for the resolution of safety issues between aeronautical authorities regarding international pilot deviations (PIPD), submitted to RAAC/14. The PIPD is a programme for electronic sharing and exchange of violation warnings and related information with civil aviation authorities (CAAs) selected to address international pilot deviations. In July 2007, the FAA completed its PIPD test phase and is currently in the operational implementation phase.

Take-off and landing performance assessment (TALPA)

4.62 The FAA also presented to the Meeting (IP/05) information regarding a tool called TALPA (take-off and landing performance assessment) used for mitigating runway end excursions during the take-off and landing phases resulting from changes in runway conditions. The FAA required the use of the TALPA procedure in airports as of October 2016. The Meeting took note that, if a State wished to apply TALPA, it required two years of prior preparation.

Management of small-drone operations in France

4.63 The Meeting took note of the software tools used by the DGCA of France for managing operations with small drones (SOFIA, MEDRONE, and HOLOGARDE). Small-drone operations are those involving devices of up to 25 kg. These operations have been growing very fast in France since 2012, when France published the first regulation on small drones. At present, there are more than 4,000 professional operators in France, with approximately 8,000 devices. The number of non-professional drones is about 100,000 units. More information can be found in IP/09.

Agenda Item 5: ICAO regional technical cooperation tools for the implementation of air navigation and safety improvements

- 5.1 Under this agenda item, the following working paper was presented:
 - ➤ WP/11 Regional Projects Managed by the ICAO SAM Regional Office (presented by the Secretariat)
- 5.2 The Meeting took note of the activities and progress made in the three regional projects managed by the SAM Regional Office:
 - ➤ RLA/99/901 Regional Safety Oversight Cooperation System (SRVSOP);
 - ➤ RLA/03/901 REDDIG management system and administration of the satellite segment
 - ➤ RLA/06/901 Assistance for the implementation of a regional ATM system, taking into account the ATM operational concept and the corresponding technological support in communications, navigation and surveillance (CNS)
- In summary, the three regional projects reached a level of implementation of about 90% of the budget and more than 90% of activities in 2016 and 2017. Through these projects, the following had been accomplished by 30 September: 217 assistance missions; training activities for approximately 1,892 participants; 680 delegates participated in work meetings; and a total of 236 fellowships were granted.
- According to the assessments made, the average level of satisfaction in these three projects remained at 4 out of a maximum of 5, which meant that member States were satisfied with the performance and objectives of these projects. Likewise, Paraguay expressed its satisfaction with the way in which these projects collaborated in the different air navigation implementations.
- 5.5 These projects are useful tools for the Region to support air navigation and safety improvement activities. Consequently, they are fundamental to achieve the objectives and goals of the regional priorities regarding these matters.

Agenda Item 6: Regional plan for the sustainability of air transport in the SAM Region

- Under this Agenda Item, the following working papers were presented:
 - ➤ WP/12 Progress and Future Actions related to the Regional Plan for the Sustainability of Air Transport in the SAM Region (presented by the Secretariat)
 - ➤ WP/22 IATA's Contributions to the Strategic Plan for the Support of Air Transport in the South American Region, SAM PLAN 2020-2035 (presented by IATA)
- 6.2 The Meeting recognised that the Declaration of Bogota was the starting point for a process of result-based management with clearly defined indicators for the implementation of safety and air navigation priorities during the period 2014-2016, to address continuous air traffic growth in the SAM Region.
- 6.3 The Meeting considered that the Region had made significant progress in the implementation of the goals of the Declaration of Bogota, where some goals had reached values above the target, while others were below the proposed percentages. Likewise, clear guidance was provided on ICAO priorities, in line with global planning.
- Taking into account the positive experience of the Declaration of Bogota, the Meeting considered that the SAM Region was ready to take on a new management commitment at the highest level of government administration, to help prioritise those initiatives that would generate greatest impact on the safe and orderly development of air transport in South America, including those goals of the Declaration of Bogota that were still pending, incorporating an inspiring, charismatic while ambitious vision for the Region.
- 6.5 In this sense, the Meeting deemed it necessary to develop a regional plan for the sustainability of air transport in the SAM Region to serve as a management tool in support of decision-making by the States to ensure sustainable development of air transport until 2035, clearly aligned with the sustainable development goals (SDGs) established by the United Nations to ensure the prosperity of humankind and environmental protection.
- Regarding the regional plan for the sustainability of air transport in the SAM Region, the Meeting took note that the plan was aimed at ensuring the sustained growth of civil aviation in the Region, with emphasis on the following four axes:
 - Air connectivity
 - Safety
 - Institutional building, and
 - Environmental protection.
- The Meeting initially recognised the importance of the four axes that could make up the Regional plan for the sustainability of air transport in the SAM Region, which were aligned with ICAO strategic objectives and the United Nations sustainable development goals, and agreed that the documentation prepared by the ICAO SAM Office on the axes should be considered as initial reference for the plan. The preliminary documentation was posted on the following website https://www.icao.int/SAM/Pages/ES/MeetingsDocumentation ES.aspx?m=2017-RAAC15

- The Meeting considered that SAM States should designate a focal point, who, together with the Secretariat of the ICAO SAM Office, the LACAC Secretariat, a representative of IATA, and representatives of other interested international bodies, would form a group, whose initial tasks would be: to analyse the scope of the plan in each of its axes, identify the experts that would be required for drafting the plan in the various axes, and establish a timetable for conducting the activities of the plan.
- 6.9 Under the coordination of the ICAO Secretariat, the group would have a first virtual meeting on the first quarter of 2018 to start planning activities. Follow-up to the activities of the group would be through teleconferences, conducted as often as defined by the group and, if necessary, through face-to-face meetings to be held in Lima, Peru, at the ICAO SAM Office.
- 6.10 Following broad participation by all SAM States and LACAC, in which support was given to the vision of the Plan and some reservations were expressed regarding the challenges that some of the proposals contained in the draft prepared by the Secretariat posed to the States, and the need to have sufficient time to develop a feasible strategy for the implementation of the vision of the Plan, taking into account the asymmetries amongst the States of the Region. Likewise, Bolivia informed that after completion of the review of the Plan's progress, it could participate in its development as observer. In this regard the meeting formulated the following conclusion:

Conclusion RAAC/15-7 — Action to be taken for the approval of the Regional plan for the sustainability of air transport in the SAM Region and the declaration of implementation

In order to develop a regional plan for the sustainability of air transport in the SAM Region and a declaration of implementation, the Directors General of Civil Aviation of the SAM Region:

- a) support the four exes of the proposal of a Regional plan for the sustainability of air transport in the SAM Region: connectivity, safety, institutional building, and environmental protection, which are aligned with ICAO strategic objectives and with the sustainable development goals of the United Nations;
- b) undertake to designate during the first quarter of 2018 focal points to be part of a group that, together with the ICAO Secretariat, the LACAC Secretariat, and representatives of interested international organisations, would analyse the scope of the plan in each of its axes, identify the experts that would be required for the drafting of the plan in its different axes, and establish a timetable for conducting the activities of the plan;
- c) undertake to carry out the activities defined by the group that may be required for the drafting of the aforementioned plan and its respective declaration; and
- d) undertake to participate in the teleconferences and the required face-to-face meetings.

Agenda Item 7: Other matters

- 7.1 Under this agenda item, the following working paper was presented:
 - ➤ WP/27 Best practices of change management in aviation (presented by France)

Best practices of change management in aviation

- The Meeting took note that change management was an essential component of the Safety Management System, and could be applied using a continuous improvement cycle known as Plan-Do-Check-Adjust (PDCA) cycle that facilitates the orderly implementation of something new or modified, which we shall call "Change". Change is a transition process that modifies one or several characteristics of a system (for example, an organisation, an individual, a procedure, a process, etc.), changing its state. The main enablers of change are personnel, communication, and training, which should be integrated into change management.
- 7.3 The Meeting also noted that appropriate change management was important for successful implementation of projects and should be taken into account by all aviation stakeholders for safe, efficient, and sustainable implementation of change. In this sense, it was recommended that this management concept be applied within the framework of the NCLB campaign to ensure the implementation of safe, efficient, and sustainable projects.

Other considerations

The President of INAC of Venezuela informed the Meeting about the continuous efforts being made to maintain the aeronautical infrastructure at its highest standard, highlighting the implementation of a new AMHS system, a 360° air traffic control simulator, with plans for modernising the ATM automation system at the Maiquetia ACC and installing a new secondary radar in 2018. He also noted the efforts made to maintain the effective implementation of the critical elements of the ICAO USOAP and USAP programmes in the range of 90%, and the Category 1 granted by the FAA. In this regard, Venezuela firmly expressed its position in the sense that the only authority at the international level that is competent to express an opinion regarding the level of compliance with ICAO standards is the Organization itself of any State with which bilateral agreements have been signed that permit it.