INTERNATIONAL CIVIL AVIATION ORGANIZATION

CAR/SAM PLANNING AND IMPLEMENTATION REGIONAL GROUP (GREPECAS)

FOURTH MEETING OF THE PROGRAMMES AND PROJECTS REVIEW COMMITTEE (PPRC/4)

FINAL REPORT

Lima, Peru, 12 – 14 July 2016

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HISTORY OF THE MEETING

ii.1 Place and Duration of the Meeting

The Fourth Meeting of the Programmes and Projects Review Committee (PPRC/4) was held at the ICAO South American (SAM) Regional Office, in Lima, Peru, from 12 to 14 July 2016.

ii.2 Opening Ceremony and Other Matters

Mr. Franklin Hoyer, Regional Director of the ICAO South American (SAM) Regional Office and Secretary of GREPECAS, welcomed the participants, emphasizing the positive results in the implementation of the new GREPECAS work methodology. Mr. Normando Araújo de Medeiros (Brazil), Chairman of GREPECAS, highlighted the work being carried out by the PPRC and its evolution under GREPECAS. He announced his resignation as Chairman of GREPECAS for administrative reasons, and underlined the high level of professionalism of this Group and the fact that all decisions made throughout the entire history of GREPECAS had been by consensus.

The Meeting echoed the feelings expressed by the Secretariat regarding the resignation of Mr. Norman Araújo de Medeiros, who for so many years chaired GREPECAS meetings, and earned a deserved respect for his human qualities, expertise, and irreproachable ethics as recognised by all States to the length and breadth of the NAM/CAR/SAM Regions.

Mr. Franklin Hoyer, Secretary of GREPECAS, addressed a few words to Mr. Normando Araújo de Medeiros; highlighting the great work carried out as President of this Regional Group since June 2004 (GREPECAS/12) and was presented with a plaque for his accomplishments and contributions to civil aviation throughout these years.

ii.3 Organization, Officers and Secretariat

Mr. Normando Araújo de Medeiros, Chairman of GREPECAS, presided over the Meeting. Mr. Franklin Hoyer, Regional Director, ICAO South American Regional Office, acted as Secretary of the Meeting and was assisted by the following Officers from the ICAO NACC, SAM Regional Offices and Headquarters:

Melvin Cintron	Regional Director, NACC Regional Office
Oscar Quesada	Deputy Regional Director, SAM Regional Office
Julio Siu	Deputy Regional Director, NACC Regional Office
Onofrio Smarrelli	Regional Officer, Communications, Navigation and Surveillance, SAM Regional Office
Raúl Martínez	Regional Officer, Aeronautical Information Management, NACC Regional Office
Veronica Chávez	Technical Assistance Officer, SAM Regional Office
Jorge Armoa	Regional Officer, Meteorology and Aeronautical Information Management, SAM Regional Office
Fabio Salvatierra	Regional Officer, Aerodromes and Ground Aids, SAM Regional Office
Roberto Arca	Consultant Air Traffic Management/Search and Rescue, SAM Regional Office
Olga de Frutos	Technical Officer from ICAO HQ

ii.4 **Working Languages**

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

ii.5 **Agenda**

The Agenda was adopted as follows:

Agenda Item 1: Follow-up to the status of GREPECAS conclusions and decisions in force and of air navigation deficiencies in the CAR/SAM Regions with "U" priority

1.1 Review of the status of implementation of GREPECAS conclusions and decisions in force
1.2 Status of air navigation deficiencies in the CAR/SAM Regions with "U" priority

Agenda Item 2: Air navigation activities at global, intra- and inter-regional level

2.1 Preparation for the ICAO Assembly – 39th Session
2.2 Review and analysis of CAR/SAM regional matters to be discussed at the Assembly, mainly: GADSS, the new GANP and GASP, among other relevant issues
2.3 Follow-up to the implementation of inter- and intra-regional activities
2.4 RASG coordination matters

Agenda Item 3: Review of GREPECAS Programmes and Projects

3.1 Projects under the PBN Programme (B0-APTA, B0-FRTO, B0-CDO and B0-CCO)
3.2 Projects under the ATFM Programme (B0-SEQ, B0-FRTO, B0-NOPS and B0 ACDM)
3.3 Projects under the Automation and ATM Situational Awareness Programme (BO-RSEQ, B0-FICE, B0-SNET, B0-ASUR and B0-SURF)
3.4 Projects under the Ground-ground and Air-ground Telecommunication Infrastructure Programme (B0-FICE and B0-TBO)
3.5 Projects under the Aerodromes Programme (B0-SURF and B0-ACDM)
3.6 Projects under the AIM Programme (B0-DATM)
3.7 Projects under the Aeronautical Meteorology Programme (B0-AMET)

Agenda Item 4: Monitoring and reporting of the implementation of air navigation in the CAR/SAM Regions

Agenda Item 5: Items related to the organisation of GREPECAS

5.1 Review of the terms of reference and work programme of the GREPECAS Programmes and Projects Review Committee
5.2 GREPECAS annual report

Agenda Item 6: Other business

ii.6 **Attendance**

The PPRC/4 Meeting was attended by 45 participants from 5 CAR States and 8 SAM States, as members of the GREPECAS PPRC, and 5 International Organizations (ACI/LAC, AIREON, ALACPA, CANSO, and IATA), as observers. A list of participants is shown on page iii-1.

ii.7 **Draft Conclusions, Draft Decisions and Decisions**

PPRC records its activities in the form of Draft Conclusions, Draft Decisions, and Decisions as follows:

Draft Conclusions: Conclusions that require approval by GREPECAS prior to implementation.

Draft Decisions: Decisions that require approval by GREPECAS prior to implementation.

Decision: Decisions that deal with internal matters of the PPRC.

ii.8 **List of Draft Conclusions**

ii.9 **List of Draft Decisions**

LIST OF PARTICIPANTS/LISTA DE PARTICIPANTES

ARGENTINA
Néstor Damián Battistessa
Federico Deya

BOLIVIA
César A. Varela Carvajal

BRAZIL / BRASIL
Normando Araújo de Medeiros
Luiz Ricardo de Souza Nascimento

CHILE
Eduardo Villalobos
Alfonso E. De la Vega

COLOMBIA
Juan O. Hernandez R.
Harlen Mejia Oliveros

CUBA
Orlando Nevot González

CURACAO / CURAZAO
Jacques Lasten
Michael Celestijn

DOMINICAN REP. / REP. DOMINICANA
Francisco Bolívar León
Julio C. Mejía Alcántara

HAITI / HAITÍ
Jacques Boursiquot
Rollin Marcellus
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PARAGUAY
Roque Díaz Estigarribia

PERU
Paulo Vila Millones
Fernando Hermoza Húbner

TRINIDAD & TOBAGO
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Leandro (Paul) Friedman
Dulce Roses
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VENEZUELA
Carlos Millán
Willy Rojas

ACI/LAC
Javier Martínez

AIREON (Sponsor)
Ana María Persiani

ALACPA
Gustavo Fernández Favaron

CANSO
Mathew Mulhern
Anna Prouse

IATA
Julio de Souza Pereira

ICAO SECRETARIAT / SECRETARÍA OACI
Franklin Hoyer
Melvin Cintron
Oscar Quesada
Julio Siu
Onofrio Smarrelli
Raúl Martínez
Verónica Chávez
Jorge Armoa
Fabio Salvatierra
Roberto Arca
Olga de Frutos

iv List of Documents

All Meeting documentation is available at the following web link:

http://www.icao.int/SAM/ Meetings, GREPECAS, 2016

WORKING PAPERS

Number	Agenda Item	Title	Prepared and Presented by
WP/01	--	Tentative Agenda, Schedule and Proposed Working Methods	Secretariat
WP/02	1.1	Review of the status of implementation of GREPECAS conclusions and decisions in force	Secretariat
WP/03	1.2	Status of air navigation deficiencies in the CAR/SAM Regions with "U" priority	Secretariat
WP/04	2.1	Preparation for the ICAO Assembly – 39th Session	Secretariat
WP/05	2.3	Progress in the development of the new electronic Air Navigation Plan (eANP) for the CAR/SAM Regions	Secretariat
WP/06	2.3	CAR/SAM inter-regional activities	Secretariat
WP/07	2.4	RASG-PA activities	Secretariat
WP/08	3.1	Projects under the PBN Programme (B0-APTA, B0-FRTO, B0-CDO and B0-CCO) Follow-up to the activities under Project A1 (PNB implementation) and Project A2 (Air Navigation System in support of PBN) (***Revised***)	Secretariat
WP/09	3.2	Projects under the ATFM Programme (B0-SEQ, B0-FRTO, B0-NOPS and B0 ACDM) ATFM Project (ASBU: B0-SEQ, B0-FRTO, B0-NOPS and B0-ACDM)	Secretariat
WP/10	3.3	Projects under the Automation and ATM Situational Awareness Programme (BO-RSEQ, B0-FICE, B0-SNET, B0-ASUR and B0-SURF) Follow-up on CAR/SAM Project C1 (automation) and Project C2 (ATM Situational Awareness) activities (***Revised***)	Secretariat
WP/11	3.4	Projects under the Ground-ground and Air-ground Telecommunication Infrastructure Programme (B0-FICE and B0-TBO) Description and follow-up to the implementation of Project activities under the Ground-ground and Ground-air Communication Infrastructure Programme for the CAR and SAM Regions	Secretariat
WP/12	3.5	Projects under the Aerodromes Programme (B0-SURF and B0-ACDM) Follow-up of the aerodrome field project activities	Secretariat
WP/13	3.6	Projects under the AIM Programme (B0-DATM) Review of the AIM Programme (B0-DATM) Projects	Secretariat
WP/14	3.7	Projects under the Aeronautical Meteorology Programme (B0-AMET) Review of the Aeronautical Meteorology Programme Projects	Secretariat
WP/15	4	Progress on the implementation and follow-up on the air navigation targets established on the Bogota and Port-of-Spain Declarations and the Regional Performance-based Air Navigation Implementation Plans	Secretariat
WP/16	5.1	Deleted	
WP/17	5.2	Format of the PIRG reports and consolidation of the annual review of all reports of the PIRG	Secretariat
WP/18	3.1	PBN codes proposal for new navigation specifications	Colombia

Number	Agenda Item	Title	Prepared and Presented by
WP/19	3.3	Implementation of ADS-B in Colombia	Colombia
WP/20	6	ICAO data-driven air traffic analysis project under the "*big data program*"	Secretariat
WP/21	2.4	Contribution to the Seventh Edition of the RASG-PA annual safety report	Secretariat
WP/22	2.1	Areas of interest to the United States at the 39th ICAO Assembly	United States
WP/23	3.5	Innovative Strategy for Improving Aerodrome Safety in the CAR/SAM Regions	United States

INFORMATION PAPERS

Number	Agenda Item	Title	Prepared and Presented by
IP/01	--	General Information	Secretariat
IP/02	--	List of Working and Information Papers	Secretariat
NI/03	3.5	Seguimiento de las actividades de la Asociación Latinoamericana y Caribeña de Pavimentos Aeroportuarios (***Spanish only***)	ALACPA
NI/04	3.5	Informe de actividades y avances del comité regional CAR/SAM de prevención del peligro aviario y fauna (CARSAMPAF) (***Spanish only***)	CARSAMPAF
IP/05	4	U.S. implementation of the aviation system block upgrades (ASBU) Block 0 Modules	United States
IP/06	6	Project Loon – Floating Cell Phone Towers in the Sky	CANSO

Agenda Item 1: Follow-up to the status of GREPECAS conclusions and decisions in force and of air navigation deficiencies in the CAR/SAM Regions with "U" priority

Under this Agenda Item, the following working papers were presented:

Agenda Item1.1:

- WP/02 – *Review of the status of implementation of GREPECAS conclusions and decisions in force* (Secretariat); and

Agenda Item 1.2:

- WP/03 – *Status of air navigation DEFICIENCIES IN THE car/sam Regions with "U priority* (Secretariat).

1.1 Review of the status of implementation of GREPECAS conclusions and decisions in force

1.1.1 The Meeting analysed the outstanding conclusions of the Seventeenth Meeting of the CAR/SAM Planning and Implementation Regional Group (GREPECAS/17), as well as the conclusions and decisions formulated at the Third Meeting of the GREPECAS Programmes and Projects Review Committee (CRPP/3), which had been approved through the GREPECAS "fast-track" procedure to enable GREPECAS to continue working between meetings.

1.1.2 After analysing the three GREPECAS/17 conclusions still in force, the Meeting agreed that Conclusion 17/8 *Inclusion of Regional Performance-Based Implementation Plans in the new Air Navigation Plan (eANP)* and Conclusion 17/12 *Revision of the ICAO Uniform Methodology for the Identification, Assessment, and Reporting of Air Navigation Deficiencies* were still valid, and that Conclusion 17/11 *Improvements in MET activities* had been completed.

1.1.3 Regarding PPRC/3 conclusions and decisions, the Meeting considered that only those listed below were still valid:

- Conclusion CRPP/3-4 *ATFM implementation activities in the CAR Region;*
- Decision CRPP/3-6 *Establishment of a working group to improve the operational use of AMHS;*
- Conclusion CRPP/3-9 *Review of the MET programme; and*
- Conclusion CRPP/3-10 *Drafting of national air navigation plans in line with the GANP and the regional performance-based implementation plans.*

The detailed status of these conclusions/decisions is shown in **Appendix A** to this Agenda item.

1.1.4 Regarding Conclusion PPRC/3-7 *Consultation with CAR/SAM States regarding e-TOD implementation dates*, the Meeting took note of the following difficulties for e-TOD implementation in Area 2 on 12 November 2015:

- technical difficulties;
- lack of training;

- human resources;
- high implementation costs.

However, note was taken of the significant progress made by States, and of plans for the acquisition of equipment and software, and for the conduction of training, to enable compliance with Standards 10.1.4 and 10.1.5 of Annex 15. The Meeting took note that, with the entry into effect of the amendment to Annex 15, Conclusion PPRC 3/7 should be considered as completed, and entrusted the Secretariat with following up its compliance through Projects G1.

1.2 Status of air navigation deficiencies in the CAR/SAM Regions with "U" priority

1.2.1 The Meeting took note of the deficiencies affecting the provision of air navigation services in ICAO Regions, which are a persistent source of concern and a high priority for the ICAO Council. Accordingly, there was a need or States to establish corrective action plans (CAPs) for their resolution.

1.2.2 The Meeting recognised that, despite efforts made by the ICAO Regional Offices to overcome the deficiencies, the following difficulties still persisted:

- The process to update the GANDD is sometimes complicated, resulting in States failing to update the information periodically.
- Some deficiencies remain unresolved in the GANDD for a long time.
- The main source for the identification of deficiencies had been the missions by ICAO regional officials to the States, but these missions were no longer carried out.
- Of all the recognised organisations capable of providing information on deficiencies, only the International Federation of Air Line Pilot Association (IFALPA) has provided a list of deficiencies.

1.2.3 The Meeting did the follow-up to GREPECAS Conclusion 17/12, noting that ICAO had not yet completed the review of the uniform methodology for the identification, assessment, and reporting of air navigation deficiencies, which should have been completed by the end of 2015. In this regard, the Meeting deemed it important for ICAO to complete this task as soon as possible, in order to allow the States, Territories, International Organisations, and ICAO to expedite the treatment of deficiencies.

1.2.4 IATA clarified that, due to the internal meeting structure of its organisation, the frequency of deficiency reporting to NACC and SAM Regional Offices could only be done every 6 months. The Meeting requested that the data collection process be enhanced for the purpose of deficiency reporting to the Secretariat by international organisations like IATA and IFALPA. Accordingly, it formulated the following draft decision:

DRAFT
DECISION PPRC/4-1 IMPROVED DATA COLLECTION PROCESS FOR THE TREATMENT OF DEFICIENCIES REPORTED BY IFALPA AND IATA

That, in order to improve the data collection process for the treatment of deficiencies reported by IFALPA and IATA, the NACC and SAM Regional Offices:

a) starting on the second half of 2016, hold teleconferences with IATA and IFALPA to share and validate the information on the deficiencies identified by these organisations; and

b) inform their member States, via teleconferences, about the deficiencies identified in order to seek their resolution and/or the adoption of the corresponding action.

1.2.5 The Meeting went on to review type "U" deficiencies that existed in the CAR and SAM Regions, and took note of the progress made in their resolution, as detailed in WP/03. The results of this review are shown in **Appendices B** and **C** to this Agenda item, respectively. In this regard, the Secretariat took note of the resolution of the type "U" deficiency related to VOR in Haiti (CNS 201 CAR) and of the support provided by the United States for the resolution of deficiencies related to the RESA (AGA 168 CAR and AGA 23 CAR).

1.2.6 The Meeting noted that the aeronautical meteorology area showed the largest number of type "U" deficiencies, most of them related to lack of training of professional aeronautical meteorology personnel in accordance with WMO requirements. In this sense, it formulated the following draft conclusion:

DRAFT
CONCLUSION PPRC/4-2 RESOLUTION OF AERONAUTICAL METEOROLOGY DEFICIENCIES

That, in order to resolve aeronautical meteorology deficiencies associated to its personnel, and in order to have in their staff aeronautical meteorologists that meet the training requirements of the World Meteorological Organization, CAR/SAM States and Territories that present this deficiency:

a) develop and conduct professional training courses for aeronautical meteorologists, aligned with the BIP-M contained in WMO Publication No. 1083, in partnership with universities, CATCs or tertiary non-university training institutions that meet education quality standards;

b) create cooperation links with the permanent representatives of their States to the WMO in order to have access to WMO-approved personnel remote training courses offered by universities and international institutes;

c) develop and implement a programme to link university meteorological staff or technical personnel with the aeronautical meteorology units of air navigation services in the short and medium terms; and

d) inform the respective ICAO Regional Offices at GREPECAS/18 about their plans to develop and conduct aeronautical meteorology training courses aligned with the BIP-M contained in WMO Publication No. 1083.

APPENDIX A

FOLLOW-UP TO OUTSTANDING CONCLUSIONS AND DECISIONS – FORMULATED BY PREVIOUS GREPECAS MEETINGS CONSIDERED VALID BY GREPECAS/17 AND PPRC/3 MEETINGS

Conc/Dec and Strategic Objective[1]	Title of Conclusion/Decision	Text of Conclusion/Decision	Follow-up and Remarks	Responsibility	Deliverable	Action by the ANC	Status and Reporting/ Completion Date
C 17/8 A, B and E	Inclusion Of Regional Performance-Based Implementation Plans In The New Air Navigation Plan (eANP)	That, taking into account the individual regional performance-based implementation plans, the ICAO NACC and SAM Regional Offices include the corresponding sections of those plans in the new electronic CAR/SAM Air Navigation Plan (eANP), Volume III.	The drafting of CAR/SAM Air Navigation Plan (eANP), Volume III is in progress and is expected to be completed by the end of September 2015.	ICAO	CAR/SAM electronic Air Navigation Plan (eANP), Volume III with the inclusion of ICAO NACC and SAM regional performance-based implementation plans.	Noted	Valid End 2016
C 17/11 A and B	Improvements in MET Activities.	That CAR/SAM States, Territories and International Organizations: a) continue conducting periodic volcanic ash tests; b) urge the AIS areas to prepare and disseminate, in coordination with the MET areas, ASHTAM messages when conducting volcanic ash exercises; c) urge Civil Aviation	a) On 11 and 12 December, periodic testing of Volcanic Ash SIGMETs was conducted. This exercise was CAR / SAM. b) In the exercise that has mentioned, the AIS area has actively participated with the preparation and dissemination of ASHTAMs, but only in the SAM Region. c) The WMO supported a workshop held last year in Buenos Aires on Assessment of MET Personnel Competencies. Additionally,	CAR/SAM States, Territories and International Organizations	Improvements in the MET field	Noted	Completed

[1] ICAO established the following Strategic Objectives for the 2014-2016 period:
Safety
Air Navigation Capacity and Efficiency
Environmental Protection

Conc/Dec and Strategic Objective[1]	Title of Conclusion/Decision	Text of Conclusion/Decision	Follow-up and Remarks	Responsibility	Deliverable	Action by the ANC	Status and Reporting/ Completion Date
		Training Centres (CATCs) to implement training programmes for MET personnel in accordance with the principles emanating from the World Meteorological; Organization (WMO), contained in Publication No.1083 – WMO (PIB-M); d) secure the funds required for lead auditors to visit other States of the Region to audit the MET/QMS implemented in the CAR/SAM Regions; and e) urge the Brasilia OPMET Databank to continue conducting OPMET exchange controls on a quarterly basis.	some States prepared a training programme for MET personnel in accordance with the principles emanating from the World Meteorological Organization (WMO). d) Project RLA/06/901, supported by leading auditors, visited other States of the Region to conduct MET/QMS audits. With the aforementioned support, visits were made to Bolivia, Ecuador, Panama and Uruguay during the first semester of 2015. e) The Brasilia OPMET Databank continues conducting OPMET exchange controls on a quarterly basis.				
C 17/12 A and B	Revision Of The ICAO Uniform Methodology for the Identification, Assessment and Reporting of Air Navigation Deficiencies.	That ICAO consider conducting a comprehensive revision of the uniform methodology for the identification, assessment and reporting of air navigation deficiencies, identifying opportunities for improving both the database as well as the process itself, in order to generate a more efficient and effective process, with greater participation of the users, and taking into account the	The plan for the revision of the ICAO uniform methodology for the identification, assessment and reporting of air navigation deficiencies is being reviewed by the Air Navigation Bureau (ANB) and is expected to be completed in 2015.	ICAO	The ICAO Uniform Methodology for the Identification, Assessment and Reporting of Air Navigation Deficiencies.	Noted that this request is in line with the plan of the Secretariat to review the uniform methodology for the identification, assessment and reporting of air navigation	Valid

Conc/Dec and Strategic Objective[1]	Title of Conclusion/Decision	Text of Conclusion/Decision	Follow-up and Remarks	Responsibility	Deliverable	Action by the ANC	Status and Reporting/ Completion Date
		existing limitations of the Secretariat for the identification of deficiencies through State missions.				deficiencies during 2015. No progress reported by ICAO in this regard.	
PPRC/3 C 3/1 A and B	Follow-up on the PIRGS and RASGS global coordination actions	That, with the purpose of complying with the implementation of the actions suggested in the Second PIRGs-RASGs Global Coordination Meeting, CAR/SAM Regions States/Territories and International Organizations and ICAO NACC and SAM Regional Offices implement the corresponding suggested actions and follow-up on the actions to be implemented by ICAO, according to the table presented in Appendix A to this part of the report.	GREPECAS and RASG-PA have taken action as suggested by the Second PIRG-RASG Global Coordination Meeting.	CAR/SAM States, Territories and International Organizations ICAO NACC and SAM Regional Offices	PIRG-RASG coordination implemented		Completed
PPRC/3 D 3/2 A, B and E	New CAR/SAM Regions electronic Air Navigation Plan (eANP) volumes I, II and III	That, in order to expedite the preparation and approval of the new electronic Air Navigation Plan (eANP) for the CAR/SAM Regions, the NACC and SAM Regional Offices, using the GREPECAS fast-track procedure: a) circulate by 15 August 2015, Volumes I and II of the new eANP for CAR/SAM States approval; and	- The proposal for amendment of Vol. I of the CAR/SAM eANP was sent to the D/ANB for comments on 10 November 2015. - Based on the remarks and comments of the D/ANB, a State letter was drafted and circulated on 7 December 2015 requesting comments and corrections by States. - Following the revision and comments by States, a second round of consultations was required in view of modifications	ICAO	Volumes I and II of the CAR/SAM eANP approved		Valid End of 2016

Conc/Dec and Strategic Objective[1]	Title of Conclusion/Decision	Text of Conclusion/Decision	Follow-up and Remarks	Responsibility	Deliverable	Action by the ANC	Status and Reporting/ Completion Date
		b) circulate by 15 October 2015, Volume III of the new eANP for CAR/SAM States approval.	introduced to the AOP and other tables as a result of the first round. The second round started on 4 February 2016. - At the end of the consultation period, the proposal for amendment of Vol. I of the CAR/SAM eANP was submitted to the ICAO Council on 22 March 2016. - The ICAO Council approved the amendment of Vol. I of the CAR/SAM eANP on 4 April 2016. - The approval of the PfA of Vol. I of the CAR/SAM eANP was communicated to the States on 5 April 2016. - Vol. II of the eANP was circulated to States for consultation on 18 May 2016. - It is expected that Vol. III will be circulated to States by the end of 2016.				
PPRC/3 C 3/3 A and B	CAR/SAM Regions interface control document for AIDC implementation between adjacent centres	That, for AIDC Implementation between adjacent centres, the following documents be adopted: ICD AIDC NAT/APAC v1.0 as a base document for AIDC interconnections between CAR and SAM Regions adjacent automatized centres;	a) Both the CAR and SAM Regions have considered that, for the implementation of AIDC between CAR/SAM States, the NAT/APAC AIDC ICD v1.0 should be used as the base document for AIDC interconnections. b) The use of the NAM ICD has been considered in the CAR Region.	CAR/SAM States	a) NAT/APAC AIDC ICD (v 1.0) b) NAM ICD for the CAR Region c) Guidance for AIDC implementation through the interconnection of automated centres,		Completed

Conc/Dec and Strategic Objective[1]	Title of Conclusion/Decision	Text of Conclusion/Decision	Follow-up and Remarks	Responsibility	Deliverable	Action by the ANC	Status and Reporting/ Completion Date
		for the CAR Region, ICD NAM will be used; and for the SAM Region, ICD AIDC NAT/APAC v1.0, with a minimum set of AIDC messages (specified in the AIDC implementation guide through the adjacent automatized	c) The SAM Region has considered the guidance for AIDC implementation through the interconnection of automated centres, which is consistent with the NAT/APAC AIDC v1.0.		which is consistent with the NAT/APAC AIDC v 1.0 for the SAM Region.		
PPRC/3 C 3/4 A and B	Actions for ATFM implementation in the CAR Region	That, a) concerning ATFM implementation projects, States and Territories in the CAR Region: i. avoid the implementation of ATFM measures adversely impacting safety and efficiency of air operations; ii. introduce in their bilateral Letters of Agreement, appropriate ATFM procedures to regulate strategic application of applicable ATFM measures; iii. implement as soon as possible, ATFM Positions (FMP) or ATFM units (FMU) in order to avoid an imbalance between capacity and demand,	a) CAR States with ATFM implementation projects. i. The ACC establish TMIs as coordinated with adjacent ACCs to guarantee safety. ii. Some ATS Letter of Agreement has been updated with procedures from 40 to 20 NM between traffic transfers. iii. 75% of States have implemented FMP or FMU.	States/ Territories and International Organizations	a) ATFM CAR project implementation i. Implementation of coordinated TMIs ii. ATS LOAs updated iii. 100% of ACC with FMP or FMU b) ATFM CAR Proposal for		Dec 2016 Completed Completed Valid Valid

Conc/Dec and Strategic Objective[1]	Title of Conclusion/Decision	Text of Conclusion/Decision	Follow-up and Remarks	Responsibility	Deliverable	Action by the ANC	Status and Reporting/ Completion Date
		either by scheduled or by unforeseen events; and b) ICAO NACC Regional Office take the corresponding actions to develop a proposal for amendment to Doc 7030 concerning ATFM procedures and ATC minimum separation for aircraft transfer between adjacent Control Centres (ACC) counting with overlying radar coverage, as applicable, informing PPRC/4 meeting on the progress of such actions.	ICAO NACC Office is coordinating a proposal for amendment (PFA) to Doc 7030 for the implementation of ATFM regional procedures.	ICAO NACC Regional Office	amendment (PFA)		
PPRC/3 C 3/5 A and B	Actions for ATFM implementation in the SAM Region	That, States of the SAM Region: a) replicate at local level, the ATFM training obtained by their experts in courses under the auspices of RLA/06/901 Project, in order to increase ATFM training of their specialized personnel; b) avoid the implementation of ATFM measures affecting users and having an impact on safety, mainly those administrations not having established the units to strategically manage flow control measures; c) introduce in their bilateral	a) ATFM courses were replicated at local level in the States, except Guyana and Suriname. b) ATFM measures that impacted safety were eliminated. c) Texts were incorporated into Letters of operational agreements to avoid impacting efficiency and safety. d) 56% of States have implemented at least one FMP.	States/ Territories and International Organizations	a) Local personnel trained in ATFM b) and c) LOAs were modified d) 100% of ACCs with FMP or FMU		Completed 2016

Conc/Dec and Strategic Objective[1]	Title of Conclusion/Decision	Text of Conclusion/Decision	Follow-up and Remarks	Responsibility	Deliverable	Action by the ANC	Status and Reporting/ Completion Date
		Letters of Agreement the appropriate procedures to regulate strategical application of these measures, avoiding their impact on efficiency and safety; d) implement as soon as possible, Flow Management Positions (FMP) or Units (FMU), in order to avoid capacity-demand imbalance, even by scheduled or unforeseen events; and e) present to the PPRC/4 meeting actions performed according to preceding paragraphs.					
PPRC/3 D 3/6 A	Establishment of a working group to obtain better AMHS operational use	That, in order to exploit AMHS potentialities and take advantage of its operational use: a) a working group is formed by Brazil, Dominican Republic, United States and D Programme coordinators in the CAR and SAM Regions for ground-ground and air-ground communications infrastructure; b) the working group will work through virtual meetings and will prepare a strategy to ensure	a) A group was established consisting of Brazil, United States, and the Dominican Republic, with United States as rapporteur. b) The group had virtual meetings, as well as face-to-face meetings within the context of events attended by the stakeholders, such as ANI/WG/3 in Mexico City (4-6 April 2016), the NAM/CAR/SAM Workshop for data link implementation in air traffic services (ATS), in Philipsburg, Sint Maarten (18-21 April 2016), and the 31st meeting of the MEVA technical management group (MEVA/TMG/31), in Kingston,	Working group (Brazil, USA, and Dominican Republic)	a) Establishment of the working group b) Strategy to ensure operational use of AIDC		December 2016

Conc/Dec and Strategic Objective[1]	Title of Conclusion/Decision	Text of Conclusion/Decision	Follow-up and Remarks	Responsibility	Deliverable	Action by the ANC	Status and Reporting/ Completion Date
		AMHS operational use, providing it to the Region disposal as soon as practicable.	Jamaica (24-26 May 2016). As initial result of the strategy, the group considered that the use of XM/GML for MET applications would ensure the operational use of AMHS.				
PPRC/3 C 3/7 A and B	Consultation to the CAR/SAM region states on e-TOD compliance date	That: a) GREPECAS Secretariat consult CAR/SAM Region States on e-TOD implementation compliance expectations by **12 November 2015**; and b) in case that, more than 50% of the CAR/SAM Region States could not implement on the date foreseen by the standard, the fast track procedure be used to adopt a conclusion on the convenience to amend Annex 15 extending the implementation date.	A first consultation was conducted in the SAM Region on 5 November 2015. By 31 May 2016, no answer had been received to this consultation. On 1 June 2016, a reiteration was circulated. In the CAR Region, the second ICAO CAR/SAM seminar on electronic terrain and obstacle data (eTOD) was held in November 2015 at the NACC Office, with the participation of HQ and the industry.	ICAO/States/ Territories	Number of States that have implemented eTOD		Completed 12 November 2015
PPRC/3 C 3/8 A	ICAO documentation for AIM	That, the GREPECAS Secretariat send an IOM to D/ANB requesting to prioritize the completion of Doc 9839 on AIM quality and have as soon as practicable a final version of the Doc 9881 on electronic terrain and obstacle data.	The Secretariat sent an MOI to the D/ANB	ICAO Secretariat	Completion of Doc 9839 (AIM quality) and Doc 9881 on electronic terrain and obstacle data		Completed

Conc/Dec and Strategic Objective[1]	Title of Conclusion/Decision	Text of Conclusion/Decision	Follow-up and Remarks	Responsibility	Deliverable	Action by the ANC	Status and Reporting/ Completion Date
PPRC/3 C 3/9 A and B	Revision of the MET programme and its tasks	That, a) QMS/MET implementation be measured by certification, through a QMS certifying firm on aeronautical meteorology services; b) States that have obtained QMS/MET system certification, submit a copy of their certificates to the Secretariat; c) The ICAO NACC and SAM regional offices review the procedures of volcanic ash SIGMET exercises to ensure the participation of those under the Washington VAAC responsibility; and d) The ICAO NACC and SAM Regional Offices carry out workshops on SIGMET to ensure the preparation of these messages and the correct utilization of the formats contained in ICAO Annex 3.	a) SAM States that have implemented MET/QMS (8 in total) have certified it with a certifying company. b) SAM States that have certified their MET/QMS have sent copy of the certification to the SAM Regional Office. c) The NACC and SAM Offices coordinated the exercise in 2015, in which the SAM States associated to the Washington VAAC had greater participation. d) A SIGMET workshop is scheduled to be held on 16-18 August at the SAM Regional Office. Likewise, with the support of an SIP, workshops on the production of SIGMETs will be held in Colombia, Venezuela, Suriname, and Guyana	ICAO/States/ Territories	- Certification of implemented MET/QMS. - Copies of certificates. - Participation of SAM States associated to the Washington VAAC in exercises on volcanic ash SIGMETs. - Conduction of SIGMET workshops. Copies of certificates.		Valid December 2016
PPRC/3 C 3/10 A, B and E	Development of air navigation plans aligned with the GANP and the regional performance-based air navigation plans	That, the CAR/SAM Regions States that have not yet amended or developed their National Plans aligned with the Global Air Navigation Plan (GANP) (4th edition) and the RPBANIP and SAM PBIP, complete them shortly	In the SAM Region, Argentina, Brazil, Chile, Colombia, French Guiana, and Venezuela have aligned their national plans with the GANP. Regional RPBANIP and SAM PBIP plans are aligned with the	CAR/SAM States	National and regional performance-based air navigation implementation plans aligned with the GANP		Valid December 2016

Conc/Dec and Strategic Objective[1]	Title of Conclusion/Decision	Text of Conclusion/Decision	Follow-up and Remarks	Responsibility	Deliverable	Action by the ANC	Status and Reporting/ Completion Date
		in order to harmonize the implementation and facilitate the interoperability of systems and inter and intra-regional air navigation systems and services.	GANP (4th edition).				

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AGA FIELD IN THE CAR REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
BLZ Belize										
AGA 167 CAR	Runway Strip (Annex 14, Vol. I, Chap. 3.4 - Rec 3.3.4 & 6)	Belize, BELIZE CITY, Philip Goldson International	Runway strip width is insufficient in some sections of the northern part and contains objects such as debris and vegetation.	NOV/ 2001	ICAO Visit November 2001 ICAO Visit November 2006	U	Remove the objects Widen the northern strip where required	Belize	2014	BACC will contract a firm in January 2010 to remove all vegetation and provide a runway strip of 300 meters and level the existing ground. Date postponed for 2014.
AGA 168 CAR	Runway End Safety Area (Annex 14, Vol. I, Chap. 3.5 - 3.5.1 & 7.1.9)	Belize, BELIZE CITY, Philip Goldson International	Runway end safety areas are not provided at both runway ends: •East runway end – vegetation, wet ground •West runway end – swamp	NOV/ 2001	ICAO Visit November 2001 ICAO Visit November 2006	U	Consider providing RESAs by not declaring stopways, clearing vegetation and strengthening the ground.	Belize	2014	For Runway 25, the stop has been eliminated but filling of the terrain is required to provide RESA.
AGA 463 CAR	Visual Aids (Annex 14, Vol. I, Chap. 5, 5.3.3.3, 5.3.3.4 and 5.3.3.5)	Belize, Belize City, Philip S.W Goldson International Airport (MZBZ)	Lack of aerodrome beacon	NOV/ 2006	ICAO Visit November 2006	U	An aerodrome beacon is necessary to support aircraft approaches between sunset and sunrise. This facility must be included in the Corrective Action Plan	Belize	2014	BACC has offered this item

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AGA FIELD IN THE CAR REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
CU Curaçao										
AGA 582 CAR	Aerodrome Emergency Planning (Annex 14, Vol. I, Chap. 9, 9.1.1 – 9.1.3, 9.1.6, 9.1.14 & 15)	Curaçao	The Airport Emergency Plan is outdated and does not include current amendments of Annex 14, Vol. 1 (Annex 14, Vol. 1, Chapter 9, 9.9).	JUN/ 2012	ICAO Visit 2012	U	Update the Aerodrome Emergency Plan including the latest amendment of Annex 14, Vol. I, regarding public health emergency situations.	Netherlands Antilles	APR/ 2013	In progress, deadline April 2013

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AGA FIELD IN THE CAR REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
GTM Guatemala										
AGA 23 CAR	Runway End Safety Area (Annex 14, Vol. I, Section 3.5, 3.5.1 - 3.5.5)	Guatemala, GUATEMALA, La Aurora	No runway end safety areas are provided on both runway ends	DEC/ 1999	ICAO Visit December 1999 and May 2001 ICAO visit October 2007	U	Provide RESAs	DGAC	JUN/ 2014	The DGAC should consider the provision of RESAS through the reduction of declared distances

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIM FIELD IN THE CAR REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
HTI Haiti										
AIM 341 CAR	Annex 15 Chapter 3, Par. 3.1.1.3, 3.1.2 and 3.3.3, Doc 8126 Chapter 3.	Haiti	OFNAC take all necessary measures to introduce a properly organized AIM department, taking into account that the role and importance of aeronautical information/data has direct impact on the safety of air navigation as a crucial and critical component. Consequently, corrupt or erroneous aeronautical information /data potentially affects the safety.	MAR/ 2010	ICAO Visit by Regional Officer, Aeronautical Information Management - June 2010	U	Implement the functions of AIM as follows: a) receive and/or originate b) collate or assemble c) edit d) format e) publish/store and f) distribute aeronautical information/data concerning the entire State as well as areas in which the State is responsible for air traffic services (ATS) outside its territory. Several factors that contribute to a strong organizational base need to be highlighted by OFNAC. The AIM Office needs to coordinate with: a) related technical services b) NOTAM International Office (NOF) c) aerodrome/heliport AIM dependencies d) cartographic services e) printing and distribution services and efficient communications facilities, particularly links per AFTN, fax and connection to the Internet (e-mail).	OFNAC	DEC/ 2011	Several factors that contribute to a strong organizational base need to be highlighted by the Office National de L'Aviation Civile. The AIS headquarters needs coordination with: (a) related technical services; (b) NOTAM International Office (NOF); (c) aerodrome/heliport AIS dependencies; (d) cartographic services; (e) printing and distribution services; and efficient communications facilities, particularly links per AFTN, fax and connection to the Internet (e-mail)

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE CNS FIELD IN THE CAR REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
HTI Haiti										
CNS 201 CAR	Annex 10, Vol. I, Section 3.3. Doc 8071, Vol. I, Chap. 2, par 2.2.36	Cap Haïtien VOR Station – Terminal / Approach navigation services	The VOR station is a conventional VOR Thomson CSF-model 512C, which is very old without spare parts; VOR is partially working. The shelter is in poor condition and wood supports the structure. VOR signal reports several failures. New construction near the facility are infringing upon the clear area surrounding the navaid.	OCT/ 2011	ICAO Team visit 24-28 October 2011	U		OFNAC	DEC/ 2012	

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE AIM FIELD IN THE CAR REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
JAM Jamaica										
AIM 375 CAR	Annex 15, Chap 3, Para 3.3 and 3.6.5, Doc 8126, Chap 9, Par 9.4 (Roadmap Phase 2-Going Digital Step 06)	Jamaica	Lack of NOTAM Automation	OCT/ 2011	It is required urgent action to implement NOTAM automation in order to improve the quality of the service in terms of integrity of the information	U	Automate NOTAM Service within AIM, taken into account users requirements	JCAA	DEC/ 2012	Develop a detailed automation action plan
JAM Jamaica										
MET 96 CAR	Annex 3, Chapter 7, Paragraph 7.4.1	Jamaica	Jamaica´s Meteorological Service Division does not issue wind shear warning for aerodrome where wind shear is considered as a safety factor, nor does it issue AIRMET information, in conformance with the provisions of ICAO Annex 3.	AUG/ 2011		U	The JCAA should establish a system to ensure that the Meteorological Services Division issues wind shear warnings for aerodromes where wind shear is considered as a safety factor as well as AIRMET information, in conformance with the provisions of ICAO Annex 3	National Meteorological Centre		

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE CAR REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
VCT Saint Vincent and the Grenadines										
MET 127 CAR	Annex 3, Part I, Chapter 5, STD 5.8	Saint Vincent and the Grenadines	No relay of special air-reports (AIREPs) by ATS unit is	AUG/ 2012		U	ATS units do not transmit regularly all special AIREPs to MET dependencies	TVSV	JUL/ 2013	

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE ATM FIELD IN THE CAR REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
SM Sint Maarten										
ATM 99 CAR	Annex 11, Docs 4444, 9184, 9426, 9859	Sint Maarten Airport. Air traffic control tower	Deficiente visibility from the air traffic control tower at the St. Maarten Airport.	AUG/ 2007	ICAO RO/ATM/SAR Visit in 2007	U	Carry out actions to improve control tower visibility towards the final turn and approach phases for Runway 09 at the St. Maarten Intl. Airport , which considers: a) establishment of corrective measures to improve external visibility from the control tower towards the approach and final phases of Runway 09 (U priority); and b) analyze the physical relocation of the control tower inside the St. Maarten airport premises in the medium-term (A priority).	Sint Maarten Airport		Confirmed remains outstanding ICAO RO/AGA visit in June 2012

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE CAR REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
TTO Trinidad and Tobago										
MET 132 CAR	Annex 3, Appendix 3, 4.1.2.1	Trinidad and Tobago	There is no surface wind display relating to each sensor that shall be located in the meteorological station with corresponding displays in the appropriate air traffic services units.	SEP/ 2011		U	There is a project to purchase new AWOS equipment for the MET Office at the Piarco Intl. Airport	Meteorological Service		

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
BOL Bolivia										
MET 30 SAM	Compliance with the requirements of the World Meteorological Organization (WMO) with regard to qualifications and training of aeronautical meteorology (MET) personnel (Annex 3, Chapter 2, Standard 2.1.5)	Bolivia / Aerodrome meteorological offices and meteorological watch office (MWO) of La Paz	Not all MET personnel complies with the requirements related to qualifications and training of WMO Publication No. 49. MET Technical personnel is complying functions of professional meteorologists.	OCT/ 2006	a) Carry out a review the funcions and training of the aeronautical meteorologists; and b) plan and carry out training and/or refreshment courses for aeronautical meteorological personnel requiring them.	U	They have sent MET personnel to get trained in Argentina. These efforts will continue.	AASANA		a) Personnel licenses for aeronautical meteorology will be applied. b) Courses for meteorological forecasters are being scheduled.

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE ATM FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
ECU Ecuador										
ATM 5 SAM	English proficiency in Air Traffic Services, CAR/SAM/3 Rec. 5/35	Ecuador	The proficiency in the English language of some ATC units is below the desired level and could be a contributory factor for the occurrence of incidents and/or aeronautical accidents. (Annex 1).	OCT/ 1995	GREPECAS/5	U	1. Incorporate personnel with a good level of colloquial English. 2) Establish a training plan and recurrence of the English language. (Mission 2003: State is encouraged to continue with training plan).	CAD Ecuador	DEC/ 2009	2008: Doc DGAC NB-08-08-114 of 15/07/08 Air Traffic Management expresses that the Training plan continues through years 2008 and 2009. 2007: Ecuador informed that its controllers have not been able to reach level 4 of the language proficiency foreseeing its finalization by 2007.

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
ECU Ecuador										
MET 33 SAM	Compliance with the requirements of the World Meteorological Organization (WMO) with regard to qualifications and training of aeronautical meteorology (MET) personnel (Annex 3, Part I, Chapter 2, standard 2.1.5)	Ecuador / Aerodrome meteorological offices and meteorological watch office (MWO) of Guayaquil	Not all MET personnel complies with the requirements related to qualifications and training of WMO Publication No. 49.	JUN/ 1996	a) Review the funcions and training of the aeronautical meteorologists; and b) Plan and carry out training and/or refreshment courses for aeronautical meteorological personnel requiring them.	U	Training programmes at national and international level are being carried out to have the specialized aeronautical meteorology personnel required.	DGAC	2007	

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
GUY Guyana										
MET 34 SAM	Compliance with the requirements of the World Meteorological Organization (WMO) with regard to qualifications and training of aeronautical meteorology (MET) personnel (Annex 3, Part I, Chapter 2, standard 2.1.5)	Guyana / Aerodrome meteorological office and meteorological watch office (MWO) of Georgetown	The MET Authority does not have available the minimum quantily of personnel to provide MET service.	NOV/ 2006	a) Review the funcions and training of the aeronautical meteorologists; and b) Plan and carry out training and/or refreshment courses for aeronautical meteorological personnel requiring them.	U		Hydromet Service		

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
PAN Panama										
MET 35 SAM	Compliance with the requirements of the World Meteorological Organization (WMO) with regard to qualifications and training of aeronautical meteorology (MET) personnel (Annex 3, Chapter 2, Standard 2.1.5)	Panama / Aerodrome meteorological offices and meteorological watch offices (MWO) of Tocumen	Not all MET personnel complies with the requirements related to qualifications and training of WMO Publication No. 49.	NOV/ 2000	a) Review the funcions and training of the aeronautical meteorologists; and b) Plan and carry out training and/or refreshment courses for aeronautical meteorological personnel requiring them.	U	They are making efforts to use the resources of some projects to be implemented. Plans for the formation and update to start in 2009 and end in 2011. Coordination with the universities is being carried out to correct this deficiency.	CAA	DEC/ 2015	Lack of Training Centres in the Region that provide licenses in this matter. Economic resources to train personnel abroad. Personnel from with University technical degree is been hired (gradually), as requirement. Training is expected to be provided to permanent and new hired personnel.

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
SUR Suriname										
MET 59 SAM	Surface wind (Annex 3, Standard 4.1.2.1)	Suriname COM Dependency	Displays of surface wind in ATS units correspond to wind sensor installed at the top of the TWR	OCT/ 2004	Surface wind display in the surface of ATS dependencies must corresponds to the sensors of the MET station	U		NCAA in coordination with Meteorological Service	OCT/ 2010	

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE MET FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
URY Uruguay										
MET 39 SAM	Compliance with the requirements of the World Meteorological Organization (WMO) with regard to qualifications and training of aeronautical meteorology (MET) personnel (Annex 3, Chapter 2, Standard 2.1.5)	Uruguay / Meteorological Watch Offices (MWO) and aerodrome meteorological offcies.	Not all MET personnel complies with the requirements related to qualifications and training of WMO Publication No. 49.	JUN/ 1996	a) Review the funcions and training of the aeronautical meteorologists; and b) Plan and carry out training and/or refreshment courses for aeronautical meteorological personnel requiring them.	U		DNM		
MET 107 SAM	Windshear warnings.	Uruguay	They have not equipment.	AUG/ 2011	Acquire the systems where required.	U		DNM		

OUTSTANDING DEFICIENCIES

REPORTING FORM ON AIR NAVIGATION DEFICIENCIES IN THE ATM FIELD IN THE SAM REGION

IDENTIFICATION			DEFICIENCY				ACTION PLAN			
ID	Requirements	States/facilities	Description	Date first reported	Remarks	Priority	Description	Executing body	Date of completion	Remarks
1	2	3	4	5	6	7	8	9	10	11
VEN Venezuela										
ATM 25 SAM	Use of the aeronautical phraseology	Venezuela	In general, the use of aeronautical phraseology does not meet the required levels and is a relevant factor with regard to ATS incidents.	SEP/ 2000	ATM/SAR 02/00-SAM Meeting.	U	1. Implement a continuous training and updating plan. 2) Continuously monitor its correct use in ATS units. (E-CAR/SAM-NE ICG/2 Dic 2003). Realization of refreshment courses for ATCOs during 2004.	INAC Venezuela	JUL/ 2010	2008: A recurring training is kept in aerodrome, approach and control centre phraseology, according to the CATC capacities. 2007: Venezuela informed that a continuing process for training in the use of aeronautical phraseology for air traffic controllers has been implemented, foreseeing its solution by 2007.

Agenda Item 2 : Air navigation activities at global, intra- and inter-regional level

Under this Agenda Item, the following working papers were presented:

Agenda Items 2.1/2.2:

- WP/04 – *Preparation for the ICAO Assembly* – 39th Session (Secretariat);
- WP/22 – *Areas of interest to the United States at the 39th ICAO Assembly* (United States);
- WP/05 – *Progress in the development of the new electronic Air Navigation Plan (eANP) for the CAR/SAM Regions* (Secretariat)

Agenda Item 2.3:

- WP/06 – *CAR/SAM inter-regional activities* (Secretariat)

Agenda Item 2.4:

- WP/07 - *RASG-PA activities* (Secretariat)
- WP/21 - *Contribution to the Seventh Edition of the RASG-PA Annual Safety Report* (Secretariat)

2.1 Preparation for the ICAO Assembly – 39th Session

2.2 Review and analysis of CAR/SAM regional matters to be discussed at the Assembly, mainly GADSS, the new GANP and GASP, among other relevant issues

2.2.1 The Meeting took note of the main issues to be addressed and the results expected at the ICAO Assembly – 39th Session (A39) in relation to the executive committee and the technical commission regarding PIRG activities presented in WP/04.

2.2.2 The Meeting urged CAR/SAM States to prepare themselves and follow up the information ICAO published on the A39 website, and to analyse the possibility of submitting working papers, whether individually or as a group of States or as a region, after coordinating a joint position.

2.2.3 The Meeting took note of the priority areas of interest identified by the United States for the triennium 2017-2019, to be presented at the 39th Assembly, as described in WP/22.

2.3 Follow-up to the implementation of inter- and intra-regional activities

Progress in the development of the new electronic Air Navigation Plan (eANP)

2.3.1 The Meeting noted the delay of the CAR/SAM Regions in meeting the dates proposed by Decision CRPP/3-2 for the approval of Volumes I, II and III of the eANP. So far, Volumes I and II of the CAR/SAM e-ANP have completed the approval process.

2.3.2 The Meeting noticed that, with the approval of the e-ANP Volumes I and II, which replaced the Basic Volume and the FASID of Doc 8733, the Secretariat, should review and update the reference field of air navigation deficiencies.

2.3.3 Regarding Volume III, the Meeting agreed that due to the changes to be introduced by ICAO in the GANP 2019 (sixth edition), the current draft Volume III had to be aligned accordingly. Therefore, it decided to postpone the delivery date of Volume III. Likewise, the Meeting recalled the validity of the performance-based regional plans of the CAR (RPNAMIP) and SAM (PBIP) Regions for the implementation of the improvements foreseen in both Regions. In this sense, the Meeting considered the replacement of Decision 3/2 with the following draft decision:

DRAFT
DECISION PPRC/4-3 POSTPONEMENT OF THE APPROVAL OF VOL. III OF THE CAR/SAM eANP

That, taking into account that ICAO is preparing the updated version of the GANP for 2019 and the importance of aligning Volume III to the requirements thereof,

a) the Secretariat defers the distribution of Vol. III of the CAR/SAM e-ANP until completing its alignment with the sixth version of the GANP; and

b) since the GANP will address the performance-based implementation issue in more detail in its sixth edition, the States are urged to continue using the Regional Performance-Based Implementation Plans (SAM-PBIP and RPBANIP) for drafting their national air navigation plans.

2.3.4 The Meeting also took note of the ASBU implementation workshop to be carried out in the CAR Region in September 2016 and of a similar workshop being planned in the SAM Region (Lima, 14-18 August 2017), aimed at providing direct assistance to States in aligning their national plans to the ASBU methodology based on the RPBANIP and the SAM PBIP.

CAR/SAM inter-regional activities

2.3.5 The Meeting took note of the following inter-regional activities between the CAR and SAM Regions in the CNS and ATM areas.

CNS area

- *Implementation of new circuits in the MEVA III – REDDIG II network interconnection*

- Coordination between the focal points of Brazil and the United States for the implementation of the AMHS interconnection between the Brasilia MTA and the Atlanta MTA through the MEVAIII REDDIG II interconnection.
- Successful AIDC tests between the Panama ACC and CENAMER.
- Follow-up to the implementation of the requirements of the new circuits of MEVA III and REDDIG II.
- Seminar/workshop on the implementation of advanced surveillance and automation systems, carried out in Lima, Peru, on 22-25 September 2015.
- NAM/CAR/SAM ATS data link implementation workshop, carried out in Philipsburg, Saint Maarten, on 18-21 April 2016.

➢ *Implementation of GNSS infrastructure in support of PBN*

- Workshop for the implementation of navigation infrastructure in support of PBN and precision approach operations of the Global Navigation Satellite System (GNSS) in the NAM/CAR/SAM Regions (Lima, 15-17 August 2016).

ATM area

➢ Assessment and analysis of large height deviations (LHD) at the fifteenth meeting of the GREPECAS Scrutiny Working Group (GTE/15) (Lima, 16-20 November 2015).

➢ Harmonisation of PBN routes: the Meeting took note of the ICAO meeting held in collaboration with IATA and CANSO on the harmonisation, modernisation, and implementation of performance-based navigation (PBN) in the CAR Region, held in Embraer facilities, Fort Lauderdale, United States, from 28 March to 1 April 2016.

➢ The Meeting was informed of upcoming CAR/SAM events such as the GTE/16, to be held in Mexico City, Mexico, on 5-9 September 2016, and others in early 2017.

➢ The Meeting took note that IATA had expressed its intention to sponsor a second inter-regional harmonisation meeting that would serve as a forum for ICAO CAR/SAM States, users, and other industry stakeholders for harmonising ATFM and PBN procedures as needed to improve operational efficiency and safety.

2.4 RASG coordination issues

2.4.1 The Meeting took note that, pursuant to Conclusion PPRC/3-1 *Follow-up on the PIRG and RASG global coordination actions*, RASG-PA had reviewed its Procedural Handbook, which included the procedure for coordination with GREPECAS. This handbook was discussed by the twenty-fifth meeting of the Regional Aviation Safety Group — Pan America Executive Steering Committee (RASG-PA ESC/25) held in Long Beach, United States, on 10-11 December 2015. The handbook was still in draft version.

2.4.2 The Meeting was informed of the two working groups established by RASG-PA: one concerning the Annual Safety Report (ASRT), and the other is the Regional Aviation Safety Team - Pan America (PA-RAST), whose main functions are to analyse available (reactive, proactive, and predictive) data sources for data-based safety management; to suggest objectives, priorities and indicators, and to establish measurable goals to solve safety-related deficiencies in the CAR and SAM Regions.

2.4.3 The Meeting took note that the RASG-PA plenary held meetings every 3 years, the last one being held in Panama on 20-23 June 2016.

2.4.4 The RASG-PA 2016 plan of activities is available at: http://www.icao.int/RASGPA/Documents/RASG-PA/RASGPAActivitiesPlan2016.pdf and general information on the RASG-PA can be found in: http://www.icao.int/RASGPA/Documents/RASG-PA/2016-FS-RASGPAIntroduction.pdf.

2.4.5 The Meeting took note that in the validation of LHDs corresponding to 2013 (GTE/14 report), calculations showed that operations in RVSM airspace exceeded the target level of risk (TLS), 11.9×10^{-9}. Accordingly, the work of the Regional Offices increased during 2014 and 2015, with the

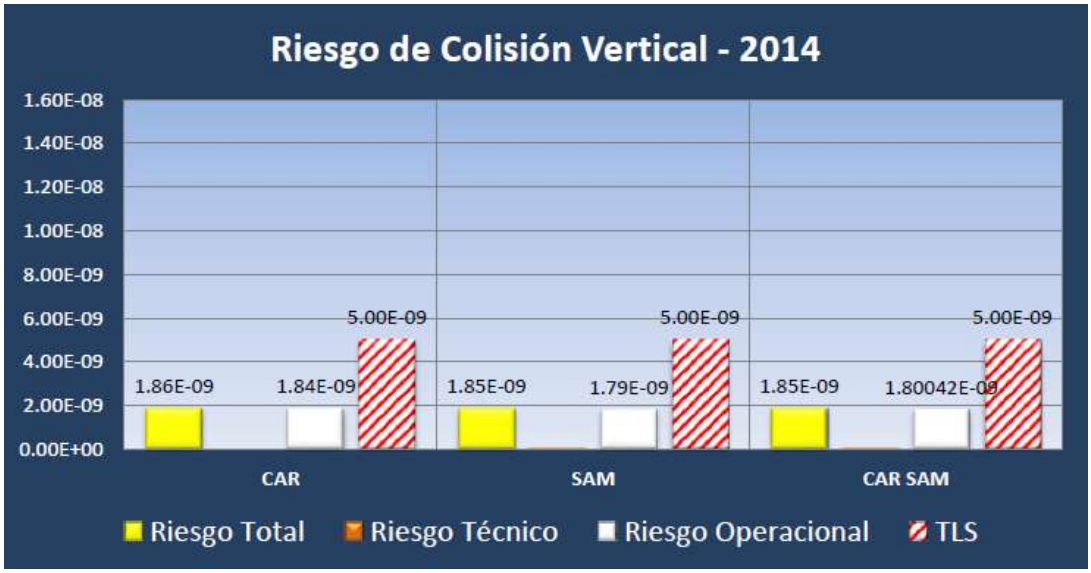
establishment of a series of mitigation strategies that had had a positive impact on the reduction of LHD events. The calculated total risk in the CAR/SAM Regions in 2014 was 1.85×10^{-9}, way below the TLS, which was 5×10^{-9}.

2.4.6 In this regard, the Meeting acknowledged the risk management efforts made by CAR and SAM States to maintain the levels of safety in RVSM airspace in order to mitigate LHD occurrences and severity.

2.4.7 The Meeting acknowledged the activities of CARSAMMA and the GREPECAS Scrutiny Group aimed at mitigating the occurrence of LHDs and endorsed the text proposed in the **Appendix** to this agenda item showing the vertical collision risk in RVSM airspace for 2014 and the variation in LHDs during 2014, as an input to the seventh edition of the Annual Safety Report, within the PIRG-RASG cooperation mechanism.

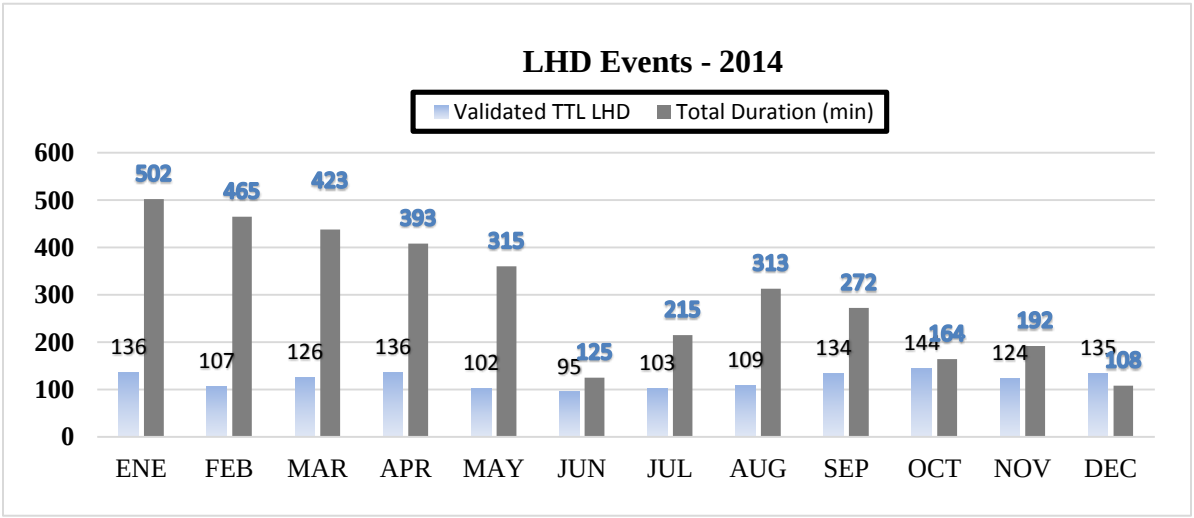
APPENDIX

As a result of actions taken by the States and ICAO, operations in RVSM airspace in the CAR and SAM Regions are within acceptable levels of risk, as shown by the validation of LHDs corresponding to 2014 (GTE/15 report). The calculated total risk in the CAR/SAM Regions is 1.85 x 10^{-9}, way below the TLS, which is 5.0 x 10^{-9}, as shown in **Graph 1**.



Graph 1 – Vertical collision risk in RVSM airspace for 2014

Actions taken by the States in coordination with ICAO have had an incremental impact on the reduction of validated LHDs, whose total duration, which is associated to severity, shows that the severity of events in the CAR and SAM Regions has dropped, as shown in **Graph 2** below:



Graph 2 – Variation of LHDs in 2014, and severity based on duration in minutes

It should also be noted that, although figures way below the TLS have been obtained for the first time since RVSM implementation in 2005, there has been an improvement in the reporting culture among ATCs and pilots.

Agenda Item 3: Review of the GREPECAS' Programmes and Projects

Under this Agenda item, the following papers were presented:

Agenda Item 3.1:

- WP/08 **Rev.** – *Follow-up to the activities under Project A1 (PBN implementation) and Project A2 (Air navigation system in support of PBN)* (Secretariat); and
- WP/18 – *PBN codes proposal for new navigation specifications* (Colombia).

Agenda Item 3.2:

- WP/09 – ATFM Project (ASBU: B0-SEQ, B0-FRTO, B0-NOPS and B0-ACDM) (Secretariat).

Agenda Item 3.3:

- WP/10 **Rev**. – *Follow-up on CAR/SAM Project C1 (automation) and Project C2 (ATM situational awareness) activities* (Secretariat); and
- WP/19 – *Implementation of ADS-B in Colombia* (Colombia).

Agenda Item 3.4:

- WP/11 – *Description and follow-up to the implementation of project activities under the ground-ground and ground-air communication infrastructure programme for the CAR and SAM Regions* (Secretariat).

Agenda Item 3.5:

- WP/12 – *Follow-up of the aerodrome field project activities* (Secretariat);
- WP/23 – *Innovative strategy for improving aerodrome safety in the CAR/SAM Regions;*
- NI/03 – *Seguimiento de las actividades de la Asociación Latinoamericana y Caribeña de Pavimentos Aeroportuarios* (**Spanish only**) (ALACPA); and
- NI/04 – *Informe de actividades y avances del Comité Regional CAR/SAM de Prevención del Peligro Aviario y Fauna* (**Spanish only**) (CARSAMPAF)

Agenda Item 3.6:

- WP/13 - *Review of the AIM programme (B0-DATM) Projects* (Secretariat).

Agenda Item 3.7:

- WP/14 - *Review of the Aeronautical Meteorology Programme Projects* (Secretariat).

GREPECAS Programmes and Projects

3.1 Projects under the PBN Programme (B0-APTA, B0-FRTO, B0-CDO and B0-CCO)

3.1.1 The Meeting took note of the progress made since the PPRC/3 meeting with respect to the activities of the projects under Programme A: *Performance-based navigation (PBN*).

Project A1 "PBN implementation" - CAR Region

3.1.2 Regarding this project, the Meeting took note of the progress made, as detailed in WP/08, highlighting that:

- 100% of CAR States had submitted their PBN implementation plans, which had been coordinated on a timely basis with ICAO Headquarters for their inclusion in the Dashboard.
- 70.6% of States were applying collaborative decision-making (CDM) for PBN planning.
- 64.7% of States had duly trained personnel. However, only 58.8% of States had published PBN training programmes for pilots/air traffic controllers (ATCOs), etc.

3.1.3 The CAR States and Territories have recognised that PBN implementation has improved the safety and efficiency of operations and has reduced the environmental impact of CO_2 emissions. In some States, the reduction of lateral/longitudinal separation minima has had a positive impact on operational efficiency.

Project A1 "PBN implementation" - SAM Region

3.1.4 The made in the implementation of the PBN Project in the SAM Region since the PPRC/3 meeting is as follows:

a) Updating of national PBN plans: 77% (the target is 100% by 2016);
b) Annual reduction of CO_2 in 2015: 23.351 TN CO_2;
c) Implementation of RNAV routes: 65%, exceeding the goal of 60% for 2016;
d) Development of action plans for the redesign of selected airspace applying PBN: 78% (the target is 100% by 2016);
e) Implementation of PBN SIDs/STARs: 70.7%, exceeding the target of 60% set in the Bogota Declaration;
f) Application of CDO and CCO techniques: 18% and 19% respectively, representing a 13.5% improvement since PPRC/3 meeting;
g) Reduction of longitudinal separation to 40 NM between GNSS-equipped aircraft: 92%.

Project A2 "Air navigation systems in support of PBN" - SAM Region

3.1.5 In Project A2 for the SAM Region, the revision of the practical GBAS implementation guide is still pending. This will take place after completing the development of a risk model that accounts for the behaviour of the ionosphere at low latitudes. The results are to be presented at the workshop on the implementation of navigation infrastructure to support PBN and GNSS precision approach operations, to be held in Lima, Peru on 15-17 August 2016.

Proposed PBN codes for the new navigation specifications

3.1.6 The Meeting acknowledged Colombia for its proposal concerning PBN codes for the new navigation specifications (RNP 2, RNP 1, RNP 0.3 and A-RNP) proposed to be included in the Doc 4444. The Secretariat clarified that due to the development of FFICE provisions expected for 2018, it would not be cost-effective to implement the proposed codes in Item 10 of FPL12. Instead, as a transitory measure until FFICE is available, States could use the proposed codes in Item 18 of the FPL12 where an operational requirement was identified. The Meeting also realized that the proposed codes were already

part of FIXM Core v3.0.1, with the exception of the code proposed for A-RNP. However, a code for A-RNP is expected to be defined in FIXM Core v4.0.

3.1.7 The Meeting took note that the Secretariat would inform CARSAMMA that the Meeting had deemed it advisable to eliminate box B6 in CARSAMMA Form F5, concerning LORAN C, which had been discontinued.

Difficulties faced under Programme A

3.1.8 The CAR Region has identified the need to increase the number of skilled personnel, improve training programmes, and improve PBN operational approval programmes. Therefore, States are encouraged to review and improve their own PBN implementation programmes with the assistance of the Regional Offices.

3.1.9 The Meeting took note of the factors affecting the fulfilment of goals in the SAM Region, *inter alia*:

a) Scarce availability of PBN procedure designers in 14% of States;
b) Project management difficulties to meet goals in 28% of States;
c) 14% of States have interrupted the TMA PBN design Project to meet the needs of other ATS projects.

3.2 Projects under the ATFM Programme (B0-SEQ, B0-FRTO, B0-NOPS and B0 ACDM)

Project B1 "Improve Demand-Capacity Balancing" – CAR Region

3.2.1 The Meeting noted that Flow management units (FMU) or Flow management position (FMP) had been created in the Caribbean (CAR) Region to coordinate ATFM traffic management initiatives (TMIs) of the flight information regions (FIR) reaching 75% of ATFM implementation. ATFM implementation in the Central American and Piarco FIRs is expected by December 2018, including training and publication of applicable procedures. The progress made by the project is shown in WP/09.

3.2.2 Similarly, the Meeting was informed that a delegation from Cuba visited the ATCSSC twice, in September 2015 and in March 2016, to exchange good practices, and that the Cuba-USA (Havana-Miami) LoA had been updated in July 2015.

Project B2 "Flexible Use of Airspace" - CAR Region

3.2.3 The Meeting took note that several coordination meetings had been held during PBN and ATFM implementation meetings among States to update ATS agreements and among the appropriate air defense units to optimise the use of ATS airspace and the provision of search and rescue (SAR) services.

GREPECAS Project B "ATFM implementation in the SAM Region"

3.2.4 The Meeting noted that with respect to the metric on the implementation of flow units in the SAM Region, which had reached 35% at the PPRC/3 meeting, Ecuador, Peru and Uruguay had implemented FMP, allowing the Region to achieve 56% ATFM implementation. Thus, the progress made in the implementation of flow management units was 21%. Detailed information by State can be found in WP/09.

Use of NOTAMs as an ATFM measure

3.2.5 Regarding this issue, the Meeting stressed the fact that NOTAMs, by nature, were a static tool that should not be used as a tactical ATFM measure, since they relied on the specific operational scenario and should be flexible and applied as needed. The tactical measures that should be implemented, if so required, were those specified in the ICAO ATFM Manual.

Measures adopted for the Rio 2016 Olympic and Paralympic Games of Brazil

3.2.6 The Meeting took note that regarding ATFM measures applied in Brazil with a view to the Rio 2016 Olympic and Paralympic Games, and for the planning and operation during the event, are shown in the AIC of Brazil that can be found in the following Internet link: http://publicacoes.decea.gov.br/?i=publicacao&id=4339.

3.3 Projects under the Automation and ATM Situational Awareness Programme (BO-RSEQ, B0-FICE, B0-SNET, B0-ASUR and B0-SURF)

3.3.1 The Meeting took note of the progress made by projects under Programme C: *Automation and ATM Situational Awareness:*

- *Project C1 - Automation and ATM Situational Awareness for the CAR Region*
- *C1 – Interoperation of Automated Systems in the SAM Region*
- *C2 - Improved ATM Situational Awareness in the SAM Region*

3.3.2 The Secretariat reminded the Meeting that project activities had been coordinated among project members, the project coordinator, and the programme coordinator, mainly through teleconferences and meetings held from time to time based on the activities of the work programme, or face-to-face meetings scheduled in each Regional Office, with the support of CAR implementation groups: the North American, Central American and Caribbean Working Group (NACC/WG), the NAM/CAR Air Navigation Implementation Working Group (ANI/WG) and the SAM Implementation Group (SAM/IG).

3.3.3 The Meeting took note of the progress made by all the projects under Programme C, as well as the future events scheduled for both CAR and SAM Regions, as detailed in WP/10. The goals achieved are listed below:

a) AIDC operational implementation between the ACCs of the United States (Miami), Cuba, Mexico, COCESNA, and Dominican Republic, reaching 50% AIDC implementation in the CAR Region. The regional AIDC target defined in the Declaration of Port-of-Spain (POS) encompassing the NAM and CAR Regions was 84.09%.

b) The SAM Region reached 33% of all (15) AIDC implementations foreseen in the Declaration of Bogota. Thirteen per cent improvement was achieved since the PPRC/3.

Difficulties encountered by Programme C

3.3.4 Taking into account the scope of the project concerning the assessment and identification of the main levels of automation, the drafting of guides on the use of existing capabilities, the proposed improvements to automation levels to enhance operations and safety, and given the absence of response/inputs for some deliverables, the Meeting accepted the proposal to adjust/include some activities

(ADS-B, AIDC evaluation, etc.) and to extend some dates, as described in the Appendices to WP/10 regarding project description.

Other considerations on Programme C

3.3.5 Colombia presented its achievements and ADS-B implementation plans, urging the Meeting to adopt the lessons learned from other States that had made progress in this implementation. IATA considered that a regional and collaborative approach should be applied to this implementation, based on a regional cost-benefit analysis including ground and satellite ADS-B. In this sense, the Meeting highlighted the need to work on a regional ADS-B implementation, recognising that both project C for the CAR Region and Project C2 from the SAM Region already include tasks to assist States in this implementation. Finally, the Meeting agreed to carry out a meeting/workshop on ADS-B implementation for the NAN/CAR/SAM Regions in 2017.

3.4 Projects under the Ground-ground and Air-ground Telecommunications Infrastructure Programme (B0 FICE and B0-TBO)

3.4.1 The meeting took note of the progress made in the projects under Programme D: Ground-Ground/Air-Ground Communication Infrastructure.

Project D - ATN Infrastructure in the CAR Region and its ground-ground and ground-air applications

3.4.2 The meeting took note on the successful implementation of eight automated channels between the Central America Area Control Centre (CENAMER) and its adjacent ACCs for the application of AIDC.

3.4.3 The implementation by COCESNA of an aeronautical communications network in Central America is foreseen for December 2016, for AMHS implementation. The Central American AMHS system will have an AIXM management system, GIS, and mapping for each one of the Central American States that are part of COCESNA.

3.4.4 The Meeting was informed of other activities, such as flight plan error mitigation, which resulted in a general reduction of duplicated flight plans by 40.08% with respect to the previous data collection, the approval of Version 2.2 of the IPv4 addressing scheme for the Caribbean, and the updating of the AMHS regional implementation plan.

Project D1 ATN Architecture in the SAM Region

3.4.5 Activities under Project D1, ATN Architecture in the SAM Region, the purpose of which was to study and implement the optimum architecture for an IP-based core network (REDDIG II) for the SAM Region, were completed in April 2016 with the commissioning of the new Brasilia node. With the implementation of Project D1 activities, the SAM Region already has a mixed satellite and ground, fully IP-based, highly available (99.99%), digital network in operation.

Project D2 SAM ATN ground-ground and air-ground applications

3.4.6 Activities still pending under this project involve the operational implementation of AMHS and AIDC. AIDC implementation activities were coordinated through project C1 on automation, and are presented in WP/10 of this Meeting.

3.4.7 Regarding AMHS interconnection in the SAM Region, the Meeting took note on the considerable progress from CRPP/3 when no new AMHS interconnection since GREPECAS/17 was reported, highlighting the operational implementation of AMHS between Brasilia and Lima, which started operating on 14 December 2015, and the connections using protocol P1 between Brazil-Spain, Argentina–Brazil, Argentina–Peru, Argentina–Venezuela, Argentina-Uruguay, and Peru-Venezuela. Further information is available in WP/11.

Other considerations on Programme D

3.4.8 The Meeting was informed about the creation of a new group made up by representatives of Brazil, United States and Dominican Republic for studying the feasibility of using AMHS for broadcasting XML data. Note was also taken of coordination between that group and the MET group for the purpose of obtaining more information, and of the work for the operational use of AHMS that will begin shortly.

Difficulties encountered by Programme D

3.4.9 Unfortunately, given the extensive areas covered by this Programme, and the limited resources and participation by experts, the actions taken so far have not been as effective as expected. The Meeting agreed to postpone the implementation dates of the activities corresponding to these projects, shown in Appendices A, C, and D to WP/11.

3.5 Projects under the Aerodromes Programme (B0-SURF and B0-ACDM)

3.5.1 The Meeting took note of the progress made by the Aerodromes Programme (F) and its respective projects.

Project F1– Aerodrome Certification for the CAR Region

3.5.2 The Meeting took note of the progress described in WP/12, especially:

a) Technical assistance mission to Trinidad and Tobago on 22-25 February 2016, under the NCLB strategy, with a multidisciplinary technical team.
b) ICAO/ACI follow-up technical assistance mission (TEAM) to Honduras on Aerodrome Certification Implementation (San Pedro Sula – 30 March to 1 April 2016), with the FAA. The first visit was in June 2015.
c) ICAO/FAA Aerodrome Certification Inspectors Workshop, 24-26 May 2016, Kingston, Jamaica.
d) ICAO/FAA Aerodrome Certification Inspectors Workshop, 14-16 June 2016 and follow-up visit (TEAM) on aerodrome certification implementation (17 June 2016), Dominican Republic.
e) The number of certified aerodromes has increased by 12%, totalling 36%.

Project F2 – Improve Runway Safety of the CAR Region

3.5.3 The Meeting took note of the progress and plans described in WP/12, highlighting:

a) An analysis was made of the results of the survey conducted at airports to determine the level of compliance with ICAO SARPs in regards to signage, signs, RESA, and runway incursions prevention measures.
b) Workshop on Best Practices to Prevent Runway Incursions/Excursions held on 11-14 August 2015 at the ICAO NACC Regional Office.
c) Mission to validate the implementation of the Runway Safety Team (RST) at the Jose Marti (MUHA) airport, jointly with FAA in October 2015.
d) Assistance missions are scheduled to Antigua and Barbuda and Aruba in the second semester of 2016.
e) The Fourteenth CAR/SAM Regional Bird/Wildlife Hazard Prevention Committee Meeting and Conference (CARSAMPAF/14) in October 2016 and the XIII Latin American and Caribbean Association of Airfield Pavements Seminar of Airport Pavements (ALACPA/12) in November 2016.

Project F1 – Aerodrome Certification for the SAM Region

3.5.4 The Meeting took note that 17 (16%) international airports in the SAM Region had been certified as of May 2016, a 4% increase compared to 12 aerodromes reported in PPRC/3, still below the target of 20% certified aerodromes in the Region by December 2016 proposed in the Declaration of Bogota. With the introduction of the Aerodrome Procedural Handbook and the latest LAR amendments to include provisions from Doc 9981 and Annex 14 amendments, it is expected that States will be able to significantly increase the percentage of certification. To this end, the Regional Office has prepared a survey on Aerodrome Certification, which will be replicated for ACI-LAC airports to facilitate the identification of the main challenges of the Region in terms of aerodrome certification. In addition, guidance material is being prepared and regional regulations are being updated in order to facilitate the process.

Project F2 – Runway safety improvement for the SAM Region

3.5.5 The Meeting took note that this project proposed a strategy to avoid duplication of efforts and to support national and international initiatives from the AGA point of view. Likewise, through activities concerning the AGA LARs sponsored by the SRVSOP, the regulations and the AGA Inspector Manual are being revised to include elements related to RSTs, given their direct relationship with CMA protocol questions (PQ).

Difficulties encountered in the implementation of the AGA programme projects and conclusions

3.5.6 To address the lack of AGA experts in CAR Projects, the Secretariat noted that an AGA PoC list was being consolidated, and joint tasks were being planned among ICAO, FAA, and ACI to support their implementation.

3.5.7 The Meeting noted that the scant progress in the AGA area had been due to lack of qualified experts and resources, both human and financial, allocated by States, and the setting of targets based on regional indicators instead of setting goals by State, and taking into account the weight of individual progress on this indicator. Thus, the Meeting emphasized the need for States to assume their

own responsibilities and increase their support and attention to the AGA areas in order to reach the regional goals established in the Bogota and Port of Spain Declarations.

3.5.8 In view of the above, the Meeting deemed it appropriate to insist on this need and agreed to formulate the following draft conclusion:

DRAFT
CONCLUSION PPRC/4-4 GREATER SUPPORT BY STATES TO AGA ISSUES AND PROJECTS

That States show a stronger commitment and take more effective action in support of GREPECAS AGA Projects, and designate AGA experts as focal points by 30 November 2016 in order to support the implementation of Aerodrome Certification activities.

3.5.9 The Meeting also took note of a strategy for improving aerodrome safety in the CAR/SAM Regions presented by United States in WP/23, proposing an increased promotion and participation of States in regional AGA activities and a better use of Doc 9981 PANS-Aerodromes through the re-establishment of an AGA subgroup or committee, in view of the low performance of both projects in attaining airport certification goals and runway safety improvements.

3.5.10 In this regard, the Meeting agreed on the need to be consistent with the project-based methodology, which was already showing good results in other areas. The Meeting also recognised the need to strengthen the AGA area, which required the adoption of measures to reassess the project strategy in order to achieve the proposed objectives, while maintaining the work methodology as accepted and approved by GREPECAS, based on programmes and projects.

3.5.11 Taking into account this clarification, the Meeting deemed it advisable to insist on this need and decided to formulate the following draft decision:

DRAFT
DECISION PPRC/4-5 ASSESSMENT OF CAR/SAM F1 AND F2 PROJECTS

That, in order to take steps to reassess the strategy of Programme F projects and be able to achieve the proposed objectives under the GREPECAS methodology, Programme F Coordinators and Projects F1 and F2 Coordinators of both CAR and SAM Regions analyse the need to reassess the strategy of both projects to increase their effectiveness, including the support offered by United States and ACI-LAC and present it at the GREPECAS/18 meeting.

Other considerations

3.5.12 The Meeting took note of IP/3 and IP/4, related to CARSAMPAF and ALACPA activities and their direct relationship with the objectives of Programme F on Aerodromes.

3.6 Projects under the AIM Programme (B0-DATM)

3.6.1 The Meeting took note of the progress made in the AIM Programme in the CAR and SAM regions since PPRC/3. The details of this programme are presented in WP/13.

CAR Region

Project G1 – Developments for the supply of electronic terrain and obstacle data (e-TOD) in the States

3.6.2 An ICAO CAR/SAM electronic Terrain and Obstacles Data (eTOD) Seminar was held in Mexico City, Mexico, from 23 to 25 November 2015, at the ICAO NACC Regional Office, to support States in the drafting and advancement of their National Action Plans.

Project G2 - Development of quality specifications applicable to the digital AIM environment

3.6.3 The States have completed or have started the QMS implementation process, reaching 85% implementation. Likewise, some CAR States were in the process of integration into a single State AIM QMS, like the E/CAR States under Trinidad and Tobago, following the COCESNA model in Central America, as well as Curacao that has expressed its interest in following this same model.

3.6.4 Trinidad and Tobago is in the final process to establish a QMS based on LoAs with the Eastern Caribbean States aimed at the production of the Integrated Aeronautical Information Package (IAIP) and to integrate them into the AIM-QMS implemented by Trinidad and Tobago (in process of certification by 2016).

SAM Region

Project G1: Implementation of the provision of electronic terrain and obstacle data (e-TOD)

3.6.5 The e-TOD project has shown progress in SAM States, but not as expected. For this reason, the Meeting agreed to extend the project in order to comply with this Standard.

Project G2 - Implementation of Aeronautical Information Exchange Systems (AIXM)

3.6.6 The Meeting was informed of the designation of experts to work in the project, the drafting of guidance documents and the conduction of workshops and seminars on AIXM and e-AIP.

Project G3 - Assessment and development of QMS applied to AIM in SAM States

3.6.7 The project on the implementation of the Quality Management System for processes managed by AIM units has advanced with regard to the activities required prior to certification. This year, Peru and Uruguay have obtained their certification, thus increasing the number of States with AIM/QMS certified by15%.

3.6.8 Since the first phase of the AIS to AIM transition roadmap, 84% progress has been made. However, the States that were delayed on AIM Quality certification are also delayed to move to the second digital phase. 16% remains to be completed in 2016.

Difficulties encountered in the implementation of AIM Programme projects and conclusions

3.6.9 Most States did not conclude e-TOD implementation for Area 2 by 12 November 2015. States should be aware that at this moment, non-compliance with this standard has become a deficiency

for States that have not completed its implementation.

3.6.10 Taking into account the above, it is suggested that States that have not implemented e-TOD for Area 2, communicate the difference through EFOD, publish this difference in the State AIP GEN 1.7 and prepare a Corrective Action Plan to eliminate the deficiency.

3.6.11 Regarding AIXM implementation, it was not possible to conduct message transmission tests between States.

3.6.12 With regard to QMS/AIM implementation, problems with senior management were encountered at the time of certifying the State Quality Management Systems. When senior management is involved in obtaining the quality certification of the systems and their processes, the barriers that delay the implementation are removed. The AIM sections of some States have completed AIM/QMS implementation, but administrative and budgetary difficulties are encountered for the certification of the implemented quality system.

3.6.13 Both the Bogota and Port of Spain Declarations represent a regional commitment of senior management to certify the quality in AIM processes. This commitment should be replicated at national level in order to obtain the certification on the agreed dates.

3.7 Projects under the Aeronautical Meteorology Programme (B0-AMET)

3.7.1 The Meeting took note of the progress made by the projects under Programme H on Aeronautical Meteorology:

- H2 *IAVW implementation for the CAR Region*
- H3 *MET QMS implementation for the CAR Region*
- H4 *Optimisation of OPMET exchange, including SIGMETs (WS, WV, and WC), advisories and meteorological alerts for the CAR Region*
- H2 *IAVW implementation for the SAM Region*
- H3 *MET QMS implementation for the SAM Region*
- H4 *OPMET exchange for the SAM Region*

3.7.2 The Meeting took note of the activities carried out pursuant to PPRC/3 Conclusion 3/9 *Review of the MET Programme and its tasks.*

3.7.3 The requirement has not been met in 13 CAR States and 6 SAM States.

3.7.4 None of the States has sent copy of the certification of the MET/QMS systems implemented in the CAR Region. The 8 SAM States have sent copy of the certification of the MET/QMS systems implemented.

3.7.5 Volcanic ash exercises were conducted on 12-13 December 2015 in coordination with the Washington and Buenos Aires VAACs and the participation of 26 States.

3.7.6 An ATS/AIM/MET coordination meeting will be held on 26-28 July this year, where the topic of the deficiencies identified in relation to the issuance of SIGMETs will be addressed. In the SAM Region, SIGMET workshops have been conducted in Colombia and Venezuela. Similar workshops will be conducted in Suriname and Guyana in July and at the Lima Regional Office on 16-18 August this year.

3.7.7 The Meeting was also informed about the activities carried out under the MET projects in both the CAR and SAM Regions. The Meeting took note of what had been done in both Regions.

3.7.8 The Meeting approved the reactivation of Projects H2 and H3 for CAR Region, as well as extension of Project H4. For the SAM Region, the Meeting approved extension of projects H2, H3 and H4, and authorized the creation of new **Project *H5 – IMPROVEMENT TO MET SERVICES IN ACORDANCE WITH NEW OPERATIONAL REQUIREMENTS IN SUPPORT TO ATM***. Project extensions and approval of new Project H5 were made according to the terms requested to the CRPP. Regarding the progress observed in MET projects, the Meeting took note of the following:

a) A SIGMET exercise on volcanic ashes was carried out with great participation by the States and excellent coordination between Buenos Aires and Washington VAACs.
b) Three additional States have concluded QMS/MET implementation process in the SAM Region from which two have already certificate it.
c) SIGMET Workshops has been carried out in two SAM States being observed that the SIGMET availability has increased in the Region.
d) In OPMET exchange made by the OPMET International Data Bank of Brasilia, a considerably widening has been observed.

Difficulties encountered for the development of projects and conclusions

3.7.9 The main difficulties encountered for the development of MET projects are listed below:

a) Scarce availability of experts from CAR States, which might hinder the reactivation of Projects H2 and H3.
b) Errors in headings and message delays persisted during volcanic ash SIGMET exercises.
c) Changes in ISO Standard 9001 in September 2015 call for a reformulation of implementation plans in the States that have not done so yet, and a review of MET/QMS systems previously implemented in order to adjust them to the new requirements.
d) Budget availability in the States for hiring certifying companies to certify the MET/QMS systems already implemented.
e) An opportunity remains to improve the efficiency of OPMET data availability in some States of the two Regions.

Agenda Item 4: Monitoring and reporting of the implementation of air navigation in the CAR/SAM Regions

Under this agenda item, the following papers were discussed:

- WP/15 - *Progress on the implementation and follow-up on the air navigation targets established on the Bogota and Port-of-Spain Declarations and the regional performance-based air navigation implementation plans* (Secretariat); and
- IP/05 - *U.S. implementation of the aviation system block upgrades (ASBU) Block 0 Modules* (United States)

4.1 The Meeting took note on the progress made by the CAR and SAM Regions in the development of national plans aligned with the regional plans, as requested by Conclusion 3/10 *Development of Air Navigation Plans Aligned with the GANP and the Regional Performance-Based Air Navigation Plans* and the level of achievement of the goals established in the Declarations of Bogota and Port-of-Spain.

CAR Region

a) The Meeting was informed that in order to support the implementation of PPRC Conclusion 3/10, an ASBU implementation workshop will be held in August 2016 to assist States and air navigation service providers (ANSPs) to understand the technological and procedural improvements involved in the ASBU framework and determine whether or not any of them can address their specific aviation system performance requirements; to use the Air Navigation Report Forms (ANRFs) to document the assessment and status of implementation of the ASBU; and to document Regional Aviation System Improvements (RASI).

b) The Meeting also took note that a survey on the implementation of air navigation targets had been conducted among all NAM/CAR States in March 2016, the results of which were posted on the website (http://www.icao.int/NACC/Pages/Implementation-Targets.aspx). Furthermore, a monitoring and reporting ad-hoc group had been established within the Air Navigation Implementation Working Group (ANI/WG) for the application of the Air Navigation Report Form (ANRF) and to assist in the updating of the national plan.

SAM Region

a) The Meeting took note of the development of national plans aligned with the GANP (4th edition) and the SAM PBIP (Conclusion 3/10): Argentina, Brazil, Chile, Colombia, French Guiana and Venezuela have reported their completion and other States are in the drafting process. The Meeting also took note of the status of implementation of air navigation goals in the SAM Region, as described in Appendix to WP/15.

Progress Chart for the targets of the Port of Spain and Bogota Declarations

4.2 Based on the report provided to the Meeting, **Appendix** to this Agenda Item shows the progress reported in 2015 (PPRC/3) and achieved to date (PPRC/4).

Implementation of ASBU Block 0 in the United States

4.3 The took note of the implementation of ASBU Block 0 modules in the United States, as shown in IP/05, which describes the implementation of 52 out of 63 elements that make up the 18 ASBU Block 0 modules.

FORM TO FOLLOW UP ON THE PROGRESS ON INDICATORS AND TARGETS FOR THE CAR/SAM REGIONS BY GREPECAS
Revision: July 2016

Indicators		CAR			SAM		
		July 2015	**Current Value**	**Goal December 2016**	**July 2015**	**Current Value**	**Goal December 2016**
1. PBN TERMINAL	% of runways with APV instrument approach with Baro VNAV, in accordance with Resolution A-37/11	84.8%	84.8%	80%	65.88%	69.14%	100%
2. PBN EN-ROUTE	% of ATS routes with PBN	N/A	N/A	N/A	58%	65%	60%
	% of international aerodromes with PBN SIDs/STARs	N/A	N/A	N/A	64.29%	70.7%	60%
3. CDO	% of international aerodromes/TMAs with CDO	N/A	N/A	N/A	4,52%	18%	40%
4. CCO	% of international aerodromes/TMAs with CCO	N/A	N/A	N/A	4,52%	19%	40%
5. Fuel / C02 savings	Reduction of emissions based on IFSET	Not provided	Target to be provided from ongoing PBN revision	Annual reduction of 40,000 Tons of CO2	2014-51,132 Tons of CO2	Being calculated but expected to exceed the target	Annual reduction of 40,000 Tons of CO2
6. ATFM	% of Area Control Centres (ACCs) providing Air Traffic Flow Management (ATFM) service	60%	60%	100% (by December 2018)	52%	56%	100%
7. AIM	% of elements (AIS to AIM roadmap) required for AIS-to-AIM transition that have been implemented in Phase I	80%	85%	100% Goal of the Phase 1 composed of 4 elements	70%	84%	100%
8. AMHS interconnection	% of AMHS interconnections at regional level	N/A	N/A	N/A	20%	35%	100%
9. Interconnection of automated systems (ATS inter-facility data communications – AIDC)	% of automated system interconnections	81.82% (NAM/CAR)	84.09 (NAM/CAR) 50% (CAR only)	50% of ACCs with at least 1 interface (AIDC/OLDI) 50%	12%	33%	100%

10. Implementation of domestic IP networks	% of SAM States with IP communication networks implemented	N/A	N/A	N/A	40%	60%	80%
***11. Aerodrome Certification (*)**	% certified aerodromes	35%	36%	48%	12%	16%	20%

(*) Safety related but managed by GREPECAS

Agenda Item 5: Items related to the organization of GREPECAS

Under this agenda item, the following working paper was presented:

Item 5.1:

Item 5.2

- WP/17 – *Format of PIRG reports and consolidation of the annual review of all PIRG reports* (Secretariat)

5.1 Review of the terms of reference and work programme of the GREPECAS Programmes and Projects Review Committee

5.1.1 No updates were made to the Terms of Reference and Work Programme of the GREPECAS Programmes and Projects Review Committee.

5.2 GREPECAS Annual Report

5.2.1 The Meeting took note of the guidance material for PIRGs/RASGs concerning the format and content of meeting reports, and the ANC proposal on how to better review the meeting reports prepared by the *ad hoc* working group (AHWG) of the Air Navigation Commission:

a) *Guidance material for the PIRGs/RASGs on the format and content of meeting reports:* information on the content of the summarised PIRG and RASG reports to be submitted to the Air Navigation Commission (ANC) and on the drafting of conclusions and decisions and the publication of the complete PIRG and RASG reports. This information is shown in **Appendix A** to this Agenda item.

b) *Proposal to the ANC on how to better review meeting reports:* information on the submission of PIRG/RASG meeting reports and issues for discussion and analysis. This information is shown in **Appendix B** to this Agenda item.

5.2.2 In this sense, the Meeting took note that this guidance on the format of PIRG reports to be submitted to the ANC SRP (Strategic Review and Planning) Group is applicable to the GREPECAS and PPRC reports, superseding GREPECAS PPRC/2 Decision 2/8. Accordingly, the Meeting formulated the following draft decision:

DRAFT
DECISION PPRC/4-6 FORMAT OF THE GREPECAS ANNUAL REPORT TO BE SUBMITTED TO THE ICAO AIR NAVIGATION COMMISSION

That GREPECAS use the methodology described in the Guide on report formatting and content shown in the Appendix to this part of the report, when drafting the final report to be submitted to the ICAO Air Navigation Bureau (ANB).

Agenda Item 6: Other business

Under this Agenda Item the following papers were presented:

- WP/20 - *ICAO data-driven air traffic analysis project under the "Big Data Program"* (Secretariat);
- IP/06 - *Project Loon - Floating cell phone towers in the sky* (English only) (CANSO);
- Presentation on Satellite ADS B (AIREON)

Project for air traffic analysis based on ICAO data within the framework of the "Big Data Program"

6.1 The Meeting took note of the ICAO "Big Data Program" project, as described in WP/20. The Meeting highlighted the importance of defining, together with airspace users, performance-based indicators in order to "*measure*" and obtain relevant information that will enable the identification of opportunities for improvement in areas such as capacity, safety, or the environment, *inter alia.* The Meeting also stressed the importance of collecting and processing the data required for calculating such indicators.

6.2 The Meeting took note that CAR/SAM States wishing to participate in this project could contact their respective Regional Office for the corresponding coordination with Headquarters, which would assess the airport being proposed by the State.

The Google Project *Loon*

6.3 The Meeting was presented with Google's Project *Loon*, a network of unmanned heavy balloons aimed at providing Internet access to many parts of the globe lacking such access.

6.4 The Meeting took note that Project Loon was appreciative of the collaboration with CAR/SAM States in the development of this initiative within the framework of ICAO and of the requirements defined in Appendix 5 to Annex 2, Rules of the Air. Some considerations regarding Project Loon can be found in State Letter AN13722.1-16/42 sent by the ICAO Secretary General on 17 June 2016.

Satellite ADS-B

6.5 The Meeting took note of the AIREON space ADS-B surveillance system with regards to its composition, status of implementation, operations concept, and operational benefits. The satellite ADS-B system would start operating by the begining of 2018.