



**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

**CAR/SAM PLANNING AND IMPLEMENTATION  
REGIONAL GROUP (GREPECAS)**

**THIRD MEETING OF THE PROGRAMMES AND  
PROJECTS REVIEW COMMITTEE  
(PPRC/3)**

**FINAL REPORT**

**Mexico City, Mexico, 21 – 23 July 2015**

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

## TABLE OF CONTENTS

i	Table of Contents .....	i-1
ii	History of the Meeting .....	ii-1
	Place and Duration of the Meeting.....	ii-1
	Opening Ceremony and Other Matters .....	ii-1
	Organization, Officers and Secretariat .....	ii-1
	Working Languages .....	ii-1
	Agenda .....	ii-2
	Attendance.....	ii-3
	Draft Conclusions, Draft Decisions and Decisions .....	ii-3
	List of Draft Conclusions .....	ii-3
	List of Draft Decisions .....	ii-3
iii	List of Participants .....	iii-1
iv	List of Documentation.....	iv-1

### REPORT ON AGENDA ITEM 1

1. Follow-up status of GREPECAS Conclusions and Decisions in Force and Air Navigation Deficiencies in the CAR/SAM Regions with “U” Priority ..... 1-1
  - 1.1 Review of the Status of Implementation of the GREPECAS Conclusions and Decisions in Force
  - 1.2 Status of Air Navigation Deficiencies in the CAR/SAM Regions with “U” Priority

### REPORT ON AGENDA ITEM 2

2. Air Navigation Activities at Global Intra and Inter-Regional Level ..... 2-1
  - 2.1 Result of the Second PIRG and RASG Global Coordination Meeting
  - 2.2 Follow-up to the Implementation of Intra and Inter-Regional Activities
  - 2.3 RASG Coordination Matters

### REPORT ON AGENDA ITEM 3

3. Review of the GREPECAS’ Programmes and Projects ..... 3-1
  - 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 (B0-RSEQ, B0-FICE, B0-SNET, B0-ASUR and B0-SURF)
  - 3.4 Projects under the Ground-ground and Air-ground Telecommunications 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)

- 3.8 Project Collaborative Process States-Industry for the Transition From the Current Systems to those specified in ASBU

#### **REPORT ON AGENDA ITEM 4**

- 4. Monitoring and Reporting of the Implementation of Air Navigation in the CAR/SAM Regions .....4-1

#### **REPORT ON AGENDA ITEM 5**

- 5. Items Related to the Organization of GREPECAS.....5-1
  - 5.1 Review of GREPECAS Terms of Reference and Work Programme of the Programmes and Projects Review Committee
  - 5.2 GREPECAS Annual Report

#### **REPORT ON AGENDA ITEM 6**

- 6. Other business.....5-1

## **HISTORY OF THE MEETING**

### **ii.1 Place and Duration of the Meeting**

The Third Meeting of the Programmes and Projects Review Committee (PPRC/3) was held at the ICAO North American, Central American and Caribbean (NACC) Regional Office, in Mexico City, Mexico, from 21 to 23 July 2015.

### **ii.2 Opening Ceremony and Other Matters**

Mr. Melvin Cintron, Regional Director of the ICAO North American, Central American and Caribbean (NACC) Regional Office, welcomed the participants and provided opening remarks regarding the importance of working in a coordinated manner. Mr. Franklin Hoyer, Regional Director of the ICAO South American (SAM) Regional Office and Secretary of GREPECAS, addressed the participants emphasizing the need to implement the new GREPECAS work methodology. Mr. Normando Araújo de Medeiros (Brazil), Chairman of GREPECAS, highlighted the work developed by the PPRC.

### **ii.3 Organization, Officers and Secretariat**

Mr. Normando Araújo de Medeiros (Brazil), 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 and SAM Regional Offices:

Melvin Cintron	Regional Director, ICAO NACC Regional Office
Oscar Quesada	Deputy Regional Director, ICAO SAM Regional Office
Onofrio Smarrelli	Regional Officer, Communications, Navigation and Surveillance, ICAO SAM Regional Office
Victor Hernández	Regional Officer, Air Traffic Management/Search and Rescue, ICAO NACC Regional Office
Julio Siu	Regional Officer, Communications, Navigation and Surveillance, ICAO NACC Regional Office
Raúl Martínez	Regional Officer, Aeronautical Information Management, ICAO NACC Regional Office
Carlos González	Regional Officer, Air Traffic Management, ICAO NACC Regional Office
Roberto Arca	Regional Officer Air Traffic Management/Search and Rescue - Aeronautical Information Management, ICAO SAM Regional Office

### **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 Status of GREPECAS Conclusions and Decisions in Force and Air Navigation Deficiencies in the CAR/SAM Regions with “U” Priority**

- 1.1 Review of the Status of Implementation of the 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 Result of the Second PIRG and RASG Global Coordination Meeting
- 2.2 Follow-up to the Implementation of Intra and Inter-Regional Activities
- 2.3 RASG Coordination Matters

**Agenda Item 3: Review of the 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 (B0-RSEQ, B0-FICE, B0-SNET, B0-ASUR and B0-SURF)
- 3.4 Projects under the Ground-ground and Air-ground Telecommunications 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)
- 3.8 Project Collaborative Process States-Industry for the Transition from the Current Systems to those Specified in ASBU

**Agenda Item 4: Monitoring and Reporting of the Implementation of Air Navigation in the CAR/SAM Regions****Agenda Item 5: Items Related with the Organization of GREPECAS**

- 5.1 Review of GREPECAS Terms of Reference and Work Programme of the Programmes and Projects Review Committee
- 5.2 GREPECAS Annual Report

**Agenda Item 6: Other business**

## ii.6 Attendance

The PPRC/3 Meeting was attended by 25 participants from 6 CAR States and 5 SAM PPRC member States of GREPECAS, and 3 International Organizations (CANSO, COCESNA 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 actions 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 matters of concern to the PRCC.

## ii.8 List of Draft Conclusions

No.	Draft Conclusion Title	Page
3/1	Follow-up on the PIRGS and RASGS global coordination actions	2-2
3/3	CAR/SAM Regions interface control document for AIDC implementation between adjacent centres	2-6
3/4	Actions for ATFM implementation in the CAR Region	3-5
3/5	Actions for ATFM implementation in the SAM Region	3-6
3/7	Consultation to the CAR/SAM region states on e-TOD compliance date	3-16
3/8	ICAO documentation for AIM	3-16
3/9	Revision of the MET programme and its tasks	3-18
3/10	Development of air navigation plans aligned with the GANP and the regional performance-based air navigation plans	4-2

## ii.9 List of Draft Decisions

No.	Draft Decision Title	Page
3/2	New CAR/SAM Regions electronic Air Navigation Plan (eANP) volumes I, II and III	2-3
3/6	Establishment of a working group to obtain better AMHS operational use	3-11

**LIST OF PARTICIPANTS****ARGENTINA**

Héctor Luis Sánchez

**BOLIVIA**

Reynaldo Cusi Mita  
Rimort E. Chavez Araujo

**BRAZIL/BRASIL**

Normando Araújo de Medeiros  
Gustavo Adolfo Camargo de Oliveira

**CHILE**

Alfonso E. de la Vega

**CUBA**

Norberto Cabrera Alonso  
Carlos Miguel Jiménez Guerra  
Iván González Valdés

**DOMINICAN REPUBLIC/REPÚBLICA  
DOMINICANA**

Bolivar León Paulino  
Julio César Mejía Alcántara

**HAITI/HAÏTI**

Joseph Jacques Boursiquot

**HONDURAS**

Consuelo Yalena Bonilla Mejia

**MEXICO/MÉXICO**

Agustín Cano Galván  
José I. Gil Jiménez  
Héctor Abraham García Cruz  
Eduardo González Peniche  
Daniel Sánchez

**PARAGUAY**

Roque Díaz Estigarribia

**UNITED STATES/ESTADOS UNIDOS**

Khalil Elia Kodsi  
Raul Chong  
Krista Berquist

**CANSO**

Javier Vanegas

**COCESNA**

Juan Carlos Trabanino

**IATA**

Marco Vidal

**ICAO/OACI**

Franklin Hoyer  
Melvin Cintron  
Oscar Quesada  
Onofrio Smarrelli  
Víctor Hernández  
Julio Siu  
Raúl Martínez  
Carlos González  
Roberto Arca



iv **List of Documentation**

All Meeting documentation is available at the following web link:

<http://www.lima.icao.int>, Meetings, GREPECAS, 2015

**WORKING PAPERS**

<b>Number</b>	<b>Agenda Item</b>	<b>Title</b>	<b>Prepared and Presented by</b>
WP/01	--	Tentative Agenda, Schedule and Proposed Working Methods	Secretariat
WP/02	1.1	Progress in the implementation of valid Conclusions and Decision of GREPECAS ( <i>Revised</i> )	Secretariat
WP/03	1.2	Exam on the current situation of “U” priority deficiencies in the CAR/SAM Regions	Secretariat
WP/04	2.1	Results of the second PIRGS & RASGS global coordination meeting and the follow-up of proposed actions	Secretariat
WP/05	2.2	Progress in the development of the new electronic Air Navigation Plan (e-ANP) for the CAR/SAM Regions	Secretariat
WP/06	2.2	Regional performance dashboard, global annual report for air navigation and progress made in achieving the CAR/SAM Regional air navigation goals ( <i>Revised</i> )	Secretariat
WP/07	2.2	CAR/SAM inter-regional activities	Secretariat
WP/08	2.3	Activities developed by RASG-PA and PIRG RASG cooperation mechanisms	Secretariat
WP/09	3.1	Follow-up to the activities under Project A1 (PBN implementation) and Project A2 (Air navigation system in support of PBN)	Secretariat
WP/10	3.2	Follow-up on the activities of Project B1 (Improve demand-capacity balancing) and Project B2 (Flexible use of airspace)	Secretariat
WP/11	3.3	Follow-up on CAR/SAM automation and ATM situational awareness project activities	Secretariat
WP/12	3.4	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/13	3.5	Follow-up of aerodrome project activities	Secretariat
WP/14	3.6	Review of the AIM Programme (B0-DATM) Projects	Secretariat
WP/15	3.7	Projects under the Aeronautical Meteorology Programme (B0-AMET)	Secretariat
WP/16	3.8	Follow up to the state-industry collaborative process for its transition from current systems to those specified in the ASBU	IATA
WP/17	4	Progress on the implementation and follow-up on the air navigation targets established on the Port-of-Spain and Bogota Declarations and the regional performance-based air navigation implementation plans	Secretariat
WP/18	5.1	Review of GREPECAS terms of reference and work programme of the PPRC	Secretariat
WP/19	5.2	Format of the PIRG reports and consolidation of the annual review of all PIRG reports	Secretariat
WP/20	3.5	Runway excursion mitigation	United States
WP/21	3.1	PBN Implementation Indicators	IATA

**INFORMATION PAPERS**

<b>Number</b>	<b>Agenda Item</b>	<b>Title</b>	<b>Prepared and Presented by</b>
IP/01	--	General Information	Secretariat
IP/02	--	List of Working and Information Papers	Secretariat
IP/03	6	ICAO update ( <i>English only</i> )	Secretariat
IP/04	2.1	World PIRGs activities ( <i>English only</i> ) ( <i>Revised</i> )	Secretariat
NI/05	3.7	Plan de Contingencia por Cenizas Volcánicas para la Región de Sudamérica (VACP/SAM) ( <i>Spanish only</i> )	Secretariat

**Agenda Item 1: Follow-up Status of CAR/SAM Planning and Implementation Regional Group (GREPECAS) Conclusions and Decisions in Force and Air Navigation Deficiencies in the CAR/SAM Regions with “U” Priority**

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

- Agenda Item 1.1:  
WP/02 - *Progress in the implementation of valid conclusions and decision of GREPECAS*
- Agenda Item 1.2:  
WP/03 - *Exam on the current situation of “U” priority deficiencies in the CAR/SAM regions*

**1.1 Review of the Status of Implementation of the GREPECAS Conclusions and Decisions in Force**

1.1.1 The Meeting analysed the Seventeenth CAR/SAM Regional Planning and Implementation Group Meeting (GREPECAS/17) conclusions and decisions, and the actions adopted to date by the CAR/SAM States/Territories/International Organizations and/or ICAO Secretariat for their implementation. In this sense, the Meeting considered that from the 9 conclusions and 4 decisions formulated, Conclusions 17/8 – *Inclusion of Regional Performance-Based Implementation Plans in the New Air Navigation Plan (e-ANP)*, 17/11 – *Improvements in MET Activities* and 17/12 – *Revision of the ICAO Uniform Methodology for the Identification, Assessment and Reporting of Air Navigation Deficiencies* are still valid. The rest of the conclusions and decisions are completed. See in **Appendix A** to this agenda item the follow-up analysis results to the pending conclusions and decisions formulated by previous GREPECAS meetings and considered valid by GREPECAS/17.

1.1.2 At the request of the Secretariat, the Meeting exchanged different points of view to analyse if the expected impact of ICAO requests is generated, so that national entities in charge of radio frequency spectrum management support ICAO position for the International Telecommunication Union (ITU) World Radio Communication Conference (WRC)-15. In this sense, the Meeting was informed of the coordination actions in Argentina, Brazil, Cuba, Trinidad and Tobago and COCESNA with local entities in charge of the spectrum management, as well as in charge of accompanying the State delegation in the Regional Meetings in preparation of the WRC-15 to support ICAO position.

**1.2 Status of Air Navigation Deficiencies in the CAR/SAM Regions with “U” Priority**

1.2.1 As a follow-up to Conclusion 17/2 — *Follow-up on AN-Conf/12 Recommendations by States and International Organizations* of GREPECAS/17, the Meeting was informed that the ICAO Air Navigation Commission (ANC) had taken note of this revision request of ICAO uniform methodology for identification, assessment and reporting of air navigation deficiencies, and informed that it is included in the 2015 ANC Secretariat activity plan.

1.2.2 The Meeting took note that IATA will send to the ICAO NACC and SAM Regional Offices its updated deficiencies list every three months so each Regional Office may perform the corresponding actions accordingly.

## APPENDIX A

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

Conc/Dec and Strategic Objective <sup>1</sup>	Title of Conclusion/Decision	Text of Conclusion/Decision	Follow-up and Remarks	Responsibility	Deliverable	Action by the ANC	Status and Reporting/Completion Date
C 17/1	Regional and global air navigation reporting.	<p>That States:</p> <p>a) support the plan to produce an online Regional Performance Dashboard in March 2014 and the annual Global Air Navigation Report to be published in April 2014;</p> <p>b) provide the required information to the ICAO Regional Offices to demonstrate operational improvements by February 2014 and periodically thereafter; and</p> <p>c) establish, if not yet done so, a performance measurement strategy that comprises data compilation, processing, storage and reporting for the regional performance metrics identified for air navigation systems.</p>	<p>a) The States support the plan to produce an online Regional Performance Dashboard and the annual Global Air Navigation Plan.</p> <p>b) The States provided the required information to update the Regional dashboard and the annual Global Air Navigation Plan.</p> <p>c) At Regional level has been established a form of the regional indicators status (Regional indicators have been established in the Declaration of Port of Spain and the Declaration of Bogotá).</p>	States/ Territories	<p>Support the plan to produce an online Regional Performance Dashboard and the annual Global Air Navigation Plan.</p> <p>Required information to demonstrate operational improvement.</p> <p>States performance measurement strategy.</p>	Noted	Completed

<sup>1</sup> ICAO established the following Strategic Objectives for the 2014-2016 period:

*Safety*

*Air Navigation Capacity and Efficiency*

*Environmental Protection*

Conc/Dec and Strategic Objective <sup>1</sup>	Title of Conclusion/Decision	Text of Conclusion/Decision	Follow-up and Remarks	Responsibility	Deliverable	Action by the ANC	Status and Reporting/Completion Date
C 17/2	Follow-up on AN-Conf/12 recommendations by States and international organisations.	That States and international organizations, on the basis of the analysis to Appendix A to this part of the report, take follow-up action as appropriate on the applicable recommendations of AN-Conf/12. Appendix A to Agenda Item 2 of PPRC/2.	The States/Territories and International Organization of the CAR/SAM Region took note the requirement to follow up actions over the appropriate AN- Conf/12.	States/ Territories and International Organization	Follow up to AN-Conf/12 recommendation.	Noted	Completed
D 17/3	Regional priorities and targets for air navigation.	That GREPECAS: a) establish, as per Recommendations 6/1 and 6/12 of the Twelfth Air Navigation Conference (AN-Conf/12), regional priorities and targets for air navigation, consistent with the Global Air Navigation Plan (GANP) and Aviation System Block Upgrades (ASBU), by March 2014, if possible, and by May 2014 at the latest; and b) as per GREPECAS Decision 16/3, the regional priorities and targets for air navigation will be coordinated with RASG-PA to ensure consistency of action and avoid overlap.	<p>a) Regional priorities and targets for air navigation for the CAR and SAM Regions was drafted and included in the Port Spain Declaration for CAR Region and Bogotá Declaration for SAM Region.</p> <p>b) The Regional Air Navigation priorities and targets were coordinated with RASG-PA to ensure consistency of actions and avoid overlap.</p>	GREPECAS secretariat	<p>Regional priorities and targets for air navigation.</p> <p>Air navigation priorities and targets coordinated with RASG-PA.</p>	Noted	Completed
D 17/4	Revised Terms of Reference and Work Programme of the Programmes and Projects Review Committee (PPRC).	That the proposed revised terms of reference and work programme of the PPRC shown in Appendix A to this part of the report are approved.	The revised terms of Reference and work programme of the PPRC was approved by GREPECAS 17 <sup>th</sup> meeting.	GREPECAS members	Terms of Reference and Work Programme of the Programmes and Projects Review Committee (PPRC).	Noted	Completed

Conc/Dec and Strategic Objective <sup>1</sup>	Title of Conclusion/Decision	Text of Conclusion/Decision	Follow-up and Remarks	Responsibility	Deliverable	Action by the ANC	Status and Reporting/Completion Date
D 17/5	GREPECAS Annual Report.	That GREPECAS submit an annual report to the ICAO Air Navigation Bureau (ANB) consisting of the GREPECAS meeting report in years when a GREPECAS meeting is held and a PPRC meeting report in other years, which includes a Table of Conclusions and Decisions in the format presented in Appendix B.	The CRPP reports and GREPECAS/17 report with the respective table of conclusion were reported to the ANB.	GREPECAS secretariat	CRPP and GREPECAS report.	Noted	Completed
C 17/6	Follow-Up on the Implementation of A38 Resolutions Regarding Air Navigation.	<p>That, pursuant to the resolutions of the 38th Assembly concerning air navigation matters, CAR/SAM States:</p> <p>a) proceed to amend their national air navigation plans, taking into account the GANP and the regional performance-based implementation plans, aligned with the ASBUs;</p> <p>b) provide the respective ICAO Regional Offices, no later than 15 September 2014, with the names and contact information (telephone, e-mail) of the focal points designated to coordinate with ICAO and the national bodies responsible for</p>	<p>a) CAR/SAM States took note of the requirement to amend their air navigation plans;</p> <p>b) CAR/SAM States provided the name and data information of the focal points designated to coordinate with ICAO and the national bodies responsible for managing the radio frequency spectrum, with a view to supporting the ICAO position at the ITU WRC-15; The NACC ICAO and SAM Offices sent the list of CAR and SAM focal points to ANB.</p> <p>c) CAR/SAM States took note about the use of ICAO standardized phraseology in all situations for which it has been specified and make use of the Aviation English Language Test Service.</p> <p>d) The CAR/SAM States took note about language</p>	CAR/SAM States	<p>a) national air navigation plans amended.</p> <p>b) List of focal point to coordinate with ICAO and the national bodies responsible for managing the radio frequency spectrum and to support ICAO position of ITU WRC- 15.</p> <p>c) Use of ICAO standardized phraseology.</p> <p>d) language proficiency testing instruments adopted.</p> <p>e) publication of any significant differences.</p> <p>f) criteria of the permanent Declaration of Resolution A38-12</p>	Noted and requested the Secretariat to provide an update on the progress by regional offices to identify the focal points designated to coordinate with ICAO and the national bodies responsible for managing the radio frequency spectrum, with a view to supporting the ICAO position at the ITU	Completed

Conc/Dec and Strategic Objective <sup>1</sup>	Title of Conclusion/Decision	Text of Conclusion/Decision	Follow-up and Remarks	Responsibility	Deliverable	Action by the ANC	Status and Reporting/Completion Date
		<p>managing the radio frequency spectrum, with a view to supporting the ICAO position at the ITU WRC-15;</p> <p>c) use ICAO standardized phraseology in all situations for which it has been specified and make use of the ICAO Aviation English Language Test Service (AELT) to verify language proficiency testing instruments;</p> <p>d) publish any significant differences in their Aeronautical Information Publication (AIP) and use the Electronic Filing of Differences (EFOD) system to notify differences to ICAO; and</p> <p>e) note the criteria of the permanent declaration of Resolution A38-12 and take them into account in the planning, establishment, and operation of air navigation services.</p>	<p>proficiency testing instruments.</p> <p>e) The CAR/SAM States took note about publish any significant differences in their Aeronautical Information Publications (AIPs) and use the Electronic Filing of Differences (EFOD) system to notify differences to ICAO; and</p> <p>f) The States took note about the criteria of the permanent declaration of Resolution A38-12.</p>		noted.	WRC-15.	
C 17/7	Approval Of The Forms To Follow-Up On The Progress On Indicators And Targets For The CAR/SAM Regions	That for GREPECAS to collect, monitor, and report progress on operational improvement implementation in the CAR/SAM Regions based on the indicators and targets established in the Bogota	<p>a) The format to follow-up on the progress of indicators and targets in the CAR/SAM Regions was approved.</p> <p>b) The format was adopted by the NACC and SAM ICAO Regional Offices to report progress on the regional</p>	GREPECAS secretariat	Form to collect monitor, and report progress on operational improvement implementation in the CAR/SAM Regions.	The ANC noted the difficulty in different regions developing common metrics and	Completed

Conc/Dec and Strategic Objective <sup>1</sup>	Title of Conclusion/Decision	Text of Conclusion/Decision	Follow-up and Remarks	Responsibility	Deliverable	Action by the ANC	Status and Reporting/ Completion Date
		<p>and Port-of-Spain Declarations and subsequently submit it to the ICAO Air Navigation Commission:</p> <p>a) the form presented in Appendix A to this part of the report is approved; and</p> <p>b) the ICAO NACC and SAM Regional Offices will implement this form in order to report progress for inclusion in the regional performance dashboards.</p>	<p>indicators but the regional performance dashboards published on the website of ICAO are based on an international database, which is likely to differ from what is collected by the Regional Offices until the data can be standardize and validate.</p>			<p>targets and encourages, where practicable, adoption of a common method for measuring an indicator.</p>	
C 17/8	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 elaboration of CAR/SAM Air Navigation Plan (eANP), Volume III is in progress and it is expected to be completed by the end of September 2015.	ICAO	CAR/SAM Air Navigation Plan (eANP), Volume III with the inclusion of ICAO NACC and SAM regional performance-based implementation plans NACC	Noted	Valid October 2015 as detailed in this Meeting PPRC/3
C 17/9	Activities for a Consolidated Interface Control Document (ICD) for AIDC Implementation in the CAR and SAM Regions.	<p>That, in order to ensure efficient and practical implementation of AIDC functionality at both intra- and inter-regional levels between the CAR and SAM Regions:</p> <p>a) ICAO, through the GREPECAS D Programme, shall assess the existing ICDs and coordinate the necessary activities</p>	Based on the ICDs, GREPECAS has proposed of the approach of using the most adequate ICDs, according to operational scenario; therefore a new conclusion was developed accordingly.	ICAO	Consolidated Interface Control for Document (ICD) for AIDC Implementation In the CAR and SAM Regions	Recommended the Secretariat and other PIRGs consider the approach of this region as a model for how to foster arrangements at both intra- and inter-	Completed



Conc/Dec and Strategic Objective <sup>1</sup>	Title of Conclusion/Decision	Text of Conclusion/Decision	Follow-up and Remarks	Responsibility	Deliverable	Action by the ANC	Status and Reporting/ Completion Date
		for development of a consolidated Interface Control Document (ICD) for AIDC implementation in the CAR and SAM Regions; and b) D Programme Projects shall submit the results of coordination for a consolidated ICD for the CAR and SAM Regions at the GREPECAS PPRC/3 Meeting.				regional levels	
C 17/10	Manual-Guide On The Assessment Of Large Height Deviations (LHDs) With SMS Methodology For The Analysis And Assessment of LHD Reports.	That the States of the CAR/SAM Regions use the Manual-Guide on the Assessment of Large Height Deviations (LHDs) with SMS methodology presented in Appendix B to this part of the report for the analysis of LHDs reports.	The States of the CAR/SAM Regions are using the Manual Guide for the assessment of LHDs	CAR/SAM States	Adoption of the Manual-Guide On The Assessment Of Large Height Deviations (LHDs) With SMS Methodology For The Analysis And Assessment of LHD Reports.	Secretariat should encourage, as far as practicable, a standardized approach to assessing LHD in all regions.	Completed
C 17/11	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 were 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) WMO supported, last year, a Workshop held in Buenos Aires, on Assessment of MET Personnel Competency. Additionally, some States	CAR/SAM States, Territories and International Organizations	Improvement MET field	Noted	Valid

Conc/Dec and Strategic Objective <sup>1</sup>	Title of Conclusion/Decision	Text of Conclusion/Decision	Follow-up and Remarks	Responsibility	Deliverable	Action by the ANC	Status and Reporting/ Completion Date
		<p>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);</p> <p>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</p> <p>e) urge the Brasilia OPMET Databank to continue conducting OPMET exchange controls on a quarterly basis.</p>	<p>prepared a training programme for MET personnel in accordance with the principles emanating from the World Meteorological Organization (WMO).</p> <p>d) The RLA/06/901 Project supported by leading auditors, visited other States of the Region to audit the MET/QMS. With the aforementioned support visits were made to Bolivia, Ecuador, Panamá and Uruguay in the first semester of 2015.</p> <p>e) The Brasilia OPMET Databank continues conducting OPMET exchange controls on a quarterly basis.</p>				
C 17/12	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 under the Air Navigation Bureau (ANB) and it is expected to be completed in 2015.	ICAO	The ICAO Uniform Methodology for the Identification, Assessment and Reporting of Air Navigation Deficiencies reviewed.	Noted that this request is in line with the plan of the Secretariat to revise the uniform methodology for the identification, assessment and reporting of air navigation	Valid December 2015

Conc/Dec and Strategic Objective <sup>1</sup>	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.	
D 17/13	Approval of amendment of the GREPECAS procedural handbook.	Version 1.2 of the Sixth Edition of the GREPECAS Procedural Handbook, as shown in Appendix to this part of the Report is approved.	GREPECAS/17 approved the amendment of the GREPECAS procedure handbook	GREPECAS members GREPECAS secretariat	GREPECAS procedural handbook amended	Noted	Completed

**Agenda Item 2 : Air Navigation Activities at Global Intra and Inter-Regional Level**

Under this Agenda Item, the following papers were presented:

Agenda Item 2.1:

- WP/04 –*Results of the second PIRGS & RASGS global coordination meeting and the follow-up of proposed actions* (Secretariat)

Agenda Item 2.2:

- WP/05 –*Progress in the development of the new electronic Air Navigation Plan (eANP) for the CAR/SAM Regions* (Secretariat)
- WP/06 –*Regional performance dashboard, global annual report for air navigation and progress made in achieving the CAR/SAM Regional air navigation goals* (Secretariat)
- WP/07 – *CAR/SAM inter-regional activities* (Secretariat)

Agenda Item 2.3

- WP/08 - *Activities developed by RASG-PA and PIRG-RASG cooperation mechanisms* (Secretariat)

**2.1 Result of the Second PIRG and RASG Global Coordination Meeting**

2.1.1 The Meeting took note of the outcome of the Second Global Coordination Meeting (GCM) of Regional Planning and Implementation Groups (PIRGs) and Regional Aviation Safety Groups (RASGs), and highlighted the following:

- collective understanding of the ICAO President of the Council campaign called "No Country Left Behind"
- define the direction of the Regional Offices focused on implementation
- change orientation towards measurable projects implemented through the PIRG and RASG
- establish extended reports through regional performance dashboards
- establish considerations on the Aviation World Forum to be held in Montreal, Canada, from 23 to 25 November 2015

2.1.2 The Meeting was informed that this Second PIRGs-RASGs GCM was held in Montreal, Canada, 5 February 2015 and was attended by the Regional Directors of ICAO Regional Offices as Secretaries of the PIRG - RASG, the Chairpersons and Vice-Chairpersons of the PIRG - RASG, the President of the Council, the Director of Cabinet, the Director of the Director, Air Navigation Bureau (ANB), Deputy Director Air Navigation and Efficiency (ANB) and the Deputy Director Aviation Safety (ANB).

2.1.3 The Meeting proceeded to the revision of the actions suggested by the Second PIRGs-RASGs Meeting summarized in the table presented in **Appendix A** to this part of the report, and preceded with the approval of the suggested implementation actions for the CAR/SAM Regions States, the GREPECAS and the follow-up on the activities by ICAO. In this sense, the Meeting formulated the following draft conclusion:

**DRAFT  
CONCLUSION 3/1 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.

2.1.4 Regarding a State question about the progress level in the region to achieve adequate coordination between RASG-PA and GREPECAS, the Secretariat explained that the coordination is guaranteed with the presence of GREPECAS Chairman in RASG-PA and vice versa, and that currently the Secretariat did not advise any exchange of responsibilities between the two groups. Additionally, the Secretariat explained that the coordination between both mechanisms is already envisaged in the GREPECAS and RASG-PA Procedural Handbooks.

2.1.5 Some States commented the importance of GREPECAS representatives in meetings being thoroughly informed on the RASG-PA process, as well as RASG-PA representatives on GREPECAS process. In this sense, the communication would be improved and therefore the coordination between mechanisms. An additional proposal to improve coordination was highlighted, which is presented in Agenda Item 5.1.

2.1.6 The Meeting agreed that some RASG-PA safety risk mitigation actions could be part of the projects that are already being developed under GREPECAS scope, and therefore RASG-PA needs to be informed to avoid any duplication of efforts, and that GREPECAS projects could be benefited with the safety intelligence information generated by RASG-PA to establish implementation priorities of operational improvement.

2.1.7 Finally, the Meeting urged the States, Territories and International Organizations to actively participate in RASG-PA meetings.

**2.2 Follow-up to the Implementation of Intra and Inter-Regional Activities**

*Progress in the electronic Air Navigation Plan (eANP) development*

2.2.1 The Meeting took note of the electronic Air Navigation Plan (eANP) implementation progress for the CAR/SAM Regions, emphasizing that it will contain three volumes:

- Volume I should contain stable plan elements, the amendment of which require approval by the Council;

- Volume II should contain dynamic plan elements, the amendment of which does not require approval by the Council (approval is by regional agreement involving the relevant PIRGs);
- Volume III should contain dynamic/flexible plan elements providing implementation planning guidance for air navigation systems and their modernization, taking into consideration emerging programmes such as the ASBUs and associated technology roadmaps described in the GANP.

2.2.2 The Meeting took note that Civil Aviation Directors in their different meetings in the CAR/SAM Regions, and regional implementation groups (SAM/IG and ANI/WG) have showed their support to the eANP implementation, appointing Points of Contact (PoC) for each Administration to facilitate its corresponding approval and application.

2.2.3 As a follow-up of eANP preparation targets, it was agreed that the review of the eANP will be approved in two phases:

- a) Considering that the incorporation of some information into Volumes I and II is still missing, it is estimated that Volumes I and II of the first eANP electronic version could be completed by the first half of August 2015. Same will be circulated among CAR/SAM States, granting 30 calendar days for its approval through the GREPECAS fast-track procedure. Final approval of same will be made through the application of ICAO Proposals for Amendment (PfAs) approval procedures.
- b) With reference to eANP Volume III, both Regional Offices will integrate the required information concerning performance based implementation regional plans of the CAR (RPBANIP) and SAM (SAM IP) Regions, for the implementation planning of air navigation systems and their modernization, taking into consideration emerging programmes such as the Aviation System Block Upgrade (ASBUs) and associated technology roadmaps described in the Global Air Navigation Plan (GANP). Volume III of eANP will be ready by the first half of October 2015, granting 30 calendar days to States for its approval through GREPECAS fast-track procedure.

2.2.4 In this respect, the Meeting adopted the following draft decision:

**DRAFT**

**DECISION 3/2**

**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
- b) circulate by **15 October 2015**, Volume III of the new eANP for CAR/SAM States approval.

### *Regional Performance Dashboards*

2.2.5 The Meeting took note of the information about the regional performance dashboard and the Global Air Navigation Plan annual report presented in **Appendix B** to this part of the report.

2.2.6 In this regard, the Meeting observed the SAM Region excellent progress in the Standard Instrument Departure/Standard Instrument Arrival (SID/STAR) Performance-Based Navigation (PBN) implementation in international aerodromes, which exceeded the goal set for 2016; also, it has met the goal set for 2014 regarding annual reduction of emissions, which were based on the implementation of PBN; plus interoperability improvements through the implementation of interconnection of automated systems, Aeronautical Message Handling System (AMHS), and IP networks.

2.2.7 Regarding the CAR Region, the Meeting observed a 79.9% progress with respect to the target set for 2016, regarding PBN implementation on instrument approach runways with APV with Baro VNAV. In the same way, an important progress over 2016 target was observed regarding AIDC implementation; it was clarified that this Port-of-Spain Declaration target is applicable to NAM and CAR Regions, therefore the NACC Regional Office commented that considering only the CAR Region, the progress is 42.86%. At the time of this meeting, no progress was available on the goal regarding emission reductions.

### *CAR/SAM Inter-Regional Activities*

2.2.8 The Meeting analysed the inter-regional activities between CAR and SAM Regions in the CNS and ATM fields.

### *CNS Area*

#### *MEVA III –REDDIG II Networks Interconnection*

2.2.9 The Meeting took note of the new MEVA III and REDDIG II network interconnection implementation work that was completed in April 2015, as well as the results of the First MEVA III REDDIG (MIIRII) Coordination Meeting, held in Oranjestad, Aruba from 25 to 26 April 2015, where it was possible to coordinate the final activities required for the implementation of pending aspects for the interconnection of the new MEVA III and REDDIG II networks, the implementation of new interconnection services, the review and approval of the Memorandum of Understanding that provides the technical, operational, and administrative coordination between the MEVA III and REDDIG II networks.

2.2.10 When analysing the First MIII/RII meeting results, the Meeting considered that the States involved in the MEVA III RII interconnection services implementation should confirm to the NACC and SAM Regional Offices as soon as possible the implementation of the involved circuits presented in the table below.

NO.	Required circuits	Estimated implementation date
1	Radar data exchange between Curazao and Venezuela	Before 2017
2	Radar data exchange between Colombia and Panama	Mid- 2016
3	Implementation of SAM AMHS circuits with Atlanta <ul style="list-style-type: none"> <li>• Caracas - Atlanta</li> <li>• Brasilia - Atlanta</li> <li>• Lima - Atlanta</li> </ul>	2016-2017
4	AMHS Implementation Colombia - Panama	2016-2017
5	Implementation of Atlanta-PIARCO AMHS circuit through the REDDIG II COCESNA node	2016
6	PIARCO-Curazao AFTN circuit	After 15 June 2015

*Implementation of ATN Ground-Ground Applications*

2.2.11 Regarding ATN ground-ground applications implementation, the Meeting considered the need of beginning coordination for migration of the AFTN circuits between Brazil, Peru and Venezuela with Atlanta to AMHS circuits, and urged the involved States to confirm the corresponding migration activities implementation.

2.2.12 Regarding Air Traffic Services Inter-facility Data Communication (AIDC), the Meeting was informed that between the CAR and SAM Regions bilateral coordination has been established between the CENAMER Area Control Centres (ACCs) and the Panama, Guayaquil and Bogota ACCs, in order to study the feasibility of implementing this service and have been carried out tests between CENAMER and Panama ACCs. Likewise, the intention is to implement in the future the AIDC service between the Curacao and Maiquetia ACCs and the PIARCO and Maiquetia ACCs. The Meeting took note that the implementation of the abovementioned AIDC services had been included in the CAR/SAM Regional AIDC Implementation Plan; therefore the States involved in this implementation were invited to review the timelines and actions needed to complete this implementation, and inform their corresponding ICAO Regional Office accordingly by end August 2015.

*Activities for a Consolidated Interface Control Document (ICD) for AIDC Implementation in the CAR/SAM Regions*

2.2.13 As a follow-up of GREPECAS Conclusion 17/9 — *Activities for a Consolidated Interface Control Document (ICD) for AIDC Implementation in the CAR/SAM Regions*, the Meeting took note of the analysis of the needs of the CAR and SAM Regions and considered the adoption of the most appropriate ICD will be in function of the operational benefits and operational scenarios. In this sense, the ICD AIDC NAT/APAC v1.0 (September 2014) document can be used as a base document for AIDC interconnection between the CAR and SAM Regions adjacent automatized centres. ICD NAM will be used for the CAR Region and ICD AIDC NAT/APAC v1.0 for the SAM Region, with a minimum AIDC messages set (specified in the AIDC implementation guide through the adjacent automatized centres interconnection).



2.2.14 In order to do this the following draft conclusion will be submitted to GREPECAS for its consideration through the fast track procedure:

**DRAFT**

**CONCLUSION 3/3**

**CAR/SAM REGIONS INTERFACE CONTROL DOCUMENT  
FOR AIDC IMPLEMENTATION BETWEEN ADJACENT  
CENTRES**

That, for AIDC Implementation between adjacent centres, the following documents be adopted:

- a) ICD AIDC NAT/APAC v1.0 as a base document for AIDC interconnections between CAR and SAM Regions adjacent automatized centres;
- b) for the CAR Region, ICD NAM will be used; and
- c) 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 centres interconnection).

*Seminar/workshop on the Implementation of Advanced Surveillance and Automation Systems*

2.2.15 The Meeting was informed that in order to support the implementation of advanced surveillance (ADS-B and multilateration) and automation (AIDC) systems in the CAR/SAM States and Territories, and meet the operational surveillance and automation requirements specified in the NAM, CAR and SAM Regions performance-based regional implementation plans within the framework of the Global Navigation Plan of ICAO, a Seminar/workshop on the Implementation of Advanced Surveillance and Automation Systems will be carried out in Panama City, Panama, will be held from 22-25 September 2015.

*Radar Data Exchange*

2.2.16 The Meeting analysed the requirements of the radar data exchange between the CAR and SAM Regions, and considered the existing exchange requirements between Trinidad and Tobago and Venezuela and between Curazao and Venezuela. In this sense, considering the initial coordination held between these States, the Meeting invited these States to continue the coordination in order to complete the necessary studies for its implementation.

2.2.17 COCESNA informed the Meeting on the successful implementation of radar data exchange between COCESNA and Panama and the Puerto Cabezas radar.

*ATM Area*

2.2.18 The Meeting was informed on the activities in the ATM field in order to coordinate the inter-regional aspects regarding the analysis of Large Height Deviations (LHDs), the Air traffic flow management (ATFM), the PBN, and the Regional Search and Rescue (SAR) System and civil/military coordination. In this sense the following points were emphasized:

- Caribbean and South American Monitoring Agency (CARSAMMA) Focal Points Meeting, Rio de Janeiro, Brazil, 11 to 13 August 2014
- Fourteenth Meeting of the GREPECAS Scrutiny Working Group (GTE/14), Mexico City, Mexico, 1 to 5 December 2014
- Eighth Global Conference on Air Traffic Flow Management (ATFM), jointly sponsored by IATA, ICAO, CANSO, SENEAM, EUROCONTROL, and FAA, with the support of AEROTHAI, Cancun, Mexico, 1 to 5 December 2014
- Workshop on the implementation of Air Traffic Flow Management in the CAR/SAM Regions, Panama City, Panama, 25 to 29 May 2015
- NAM/CAR/SAM Meeting/workshop to improve the Regional Search and Rescue (SAR) System and Civil/Military Coordination, Havana, Cuba, 13 to 17 April 2015

2.2.18 Likewise, the Meeting took note about the next GREPECAS Scrutiny Group Meeting (Lima, Peru, 16 to 20 November 2015) with the following agenda matters:

- continue with the assessment and analysis of Large Height Deviations (LHDs) of 300ft or more, apply the GTE methodology to LHD events, taking into account parameter values
- use the quantitative vertical collision risk calculation methodology
- identify operational trends, and propose mitigation measures to reduce LHD events and improve safety

## **2.3 RASG Coordination Matters**

2.3.1 As part of the GREPECAS - RASG PA cooperation mechanism, the Meeting analysed WP/08 where 2013 Reduced Vertical Separation Minimum (RVSM) airspace safety in CAR/SAM Regions assessment results are presented, performed by CARSAMMA and GTE.

2.3.2 The Meeting was informed that the assessment on RVSM airspace safety was performed based on the calculation of technical risk (influenced by the reliability and precision of aircraft avionics) and the operational risk (influenced by the human and technological components on the ground).

2.3.3 The Meeting took note that in 2013, the total risk (sum of the technical risk error plus the operational risk) was 2.38 times greater than the Target Level of Safety (TLS) of  $5 \times 10^{-9}$  mortal accidents per flight hour agreed for the region.

2.3.4 The Meeting took note on the operational risk that is the one that contributes more to the increase in the total risk, and the main cause are the coordination errors between ATC units, and the CAR/SAM Regions zones with most risks are in the Central American Flight Information Region (FIR), the boundaries of the Guayaquil/Lima and Guayaquil/Bogotá FIRs and the Atlántico/Montevideo/Ezeiza FIRs.

2.3.5 In order to mitigate operational coordination errors, the Meeting urged the CAR/SAM Regions States to finalize the AIDC implementation between automatized centres installed among ATS adjacent units, as envisaged in Port-of-Spain and Bogotá Declarations. This is recently being implemented in CAR/SAM Regions and its operational risk results will only be assessed in 2016, when AIDC implementation is estimated.

2.3.6 Finally, the Meeting agreed to contribute with one section of the sixth edition of RASG-PA Safety Annual Report, on the RVSM airspace safety analysis and approved that the text shown in **Appendix C** to this part of the report is included in the sixth edition of the to support safety management process developed by RASG-PA.

## APPENDIX A

**ACTIONS BY PIRG, RASG AND ICAO ON THE RESULTS OF THE SECOND PLANNING AND IMPLEMENTATION REGIONAL GROUP (PIRG) - REGIONAL AVIATION SAFETY GROUP (RASG) GLOBAL COORDINATION MEETING**

(Montreal, Canada, February 5, 2015)

REQUIREMENTS	RESPONSABLES	ACTION	IMPLEMENTATION DATE
Ensure effective implementation of ICAO SARPS as a matter of priority	<ul style="list-style-type: none"> <li>Regional Offices</li> <li>States</li> </ul>	<ul style="list-style-type: none"> <li>Consider the regional implementation as priority</li> <li>Inclusion of Regional Dashboards</li> <li>Inclusion of performance based regional plans</li> <li>Inclusion in GREPECAS and RASG PA programmes and projects</li> <li>Inclusion in national plans. Launching global campaigns highlighting priorities and goals.</li> </ul>	December 2015
Effective coordination PIRG RASG	<ul style="list-style-type: none"> <li>Regional Offices</li> <li>States</li> </ul>	<ul style="list-style-type: none"> <li>Analyse ASIA/PAC, APANPIRG-RASG APAC format (see Annex of Appendix B)</li> <li>Each Region establishes a PIRG-RASG coordination mechanism and its inclusion in PIRG-RASG procedures handbook, RASG-PIRG coordination mechanisms</li> </ul>	December 2015
Global Aviation Development Implementation Symposium	<ul style="list-style-type: none"> <li>ICAO Montreal</li> <li>Regional Offices</li> <li>States</li> </ul>	Draft a WP for the Global Aviation Forum on behalf of Regional States	October 2015
Development of iKITs (implementation)	<ul style="list-style-type: none"> <li>ICAO Montreal</li> <li>D/ANB</li> </ul>	<ul style="list-style-type: none"> <li>Distribution among regional States</li> <li>Regional training</li> <li>Verify regional impact</li> <li>PBIP</li> </ul>	2016
Completion of metrics in Regional Dashboards and handover to regional offices	<ul style="list-style-type: none"> <li>ICAO Montreal</li> <li>D/ANB</li> <li>Regional Offices</li> </ul>	Regional Dashboards Updating	Late 2015 or early 2016
Proposals for main KPIs to measure global implementation of air navigation and safety areas	<ul style="list-style-type: none"> <li>ICAO Montreal</li> <li>D/ANB</li> </ul>	Verify regional impact Selection of 5 to 10 KPIs	2015-2016

REQUIREMENTS	RESPONSABLES	ACTION	IMPLEMENTATION DATE
KPI capacity performance KPI focus on client: programmed Punctuality/delay KPI flight efficiency KPI delays (If any ATFM)			
Implementation trough regional projects	PIRG and RASG	Establishment of regional project	Implemented
Inclusion in GANP SAR and Tracking Global aspects	ICAO Montreal	Regional activities implact, GREPECAS, Regional and National plans	2015-2016
Standardized formats for PIRG- RASG reports	ICAO Montreal	GREPECAS and RASG-PA report adjustment	Late 2015
Project monitoring template	ICAO Montreal	GREPECAS and RASG-PA report adjustment	Late 2015
New template to report regional activities to the Council	ICAO Montreal	Use of new format	Late 2015
Next PIRG-RASG Global Coordination Meeting	ICAO Montreal		ICAO 39th Session Assembly Last quarter 2016
RO/RASG/RSOO/COSCAP alignment of priorities and targets	<ul style="list-style-type: none"> <li>• Regional Offices</li> <li>• SRVSOP</li> </ul>	Alignment with regional priorities and goals	December 2015
Focus on implementation of fewer meetings and more effective	Regional Offices		Being carried out since GREPECAS/16
Support the States in the implementation	Regional Offices	Missions of support to the implementation	Continuous activity

## ANNEX OF APPENDIX A

### 1. Coordination Mechanism Principles

- PIRG and RASG shall coordinate and support each other to achieve the agreed targets for the established regional priorities and implementation plans endorsed by the respective group;
- Continuous coordination by Secretariat for both PIRG and RASG to avoid duplication and gaps and to ensure alignment and harmonization of priorities, plans and actions;
- Secretariat will present a paper reporting on regional group coordination activities at each regional group plenary meeting and their key subsidiary bodies as appropriate;
- Chairs of APANPIRG and RASG will attend a coordination meeting at the ICAO Regional Office once a year and hold periodic coordination web meetings in between the face-to-face meetings if deemed necessary;
- Chairs will agree which regional group shall lead on each coordination topic and ensure coordination, information sharing and cross-reporting to the other group Chair, and if there is any change in lead regional group responsible, plan and ensure a smooth transition. Each group leading a coordination topic should identify any implications on the activities of the other group and highlight them to the other group and the Secretariat;
- Safety management, safety oversight system and flight operations safety aspects will usually fall under the RASG;
- Air navigation facilities and services implementation aspects will usually fall under the PIRG;
- Areas of coordination between PIRG and RASG is primarily in AGA and ANS safety areas;
- OPS (Annex 6) deficiencies listed under ATM air navigation deficiencies will be shared with RASG for further monitoring and resolution if deemed necessary;
- Cooperation to ensure that the priority ASBUs are implemented in the most efficient and safe manner; and
- ICAO will update the Procedural Handbooks of the regional groups to incorporate the coordination mechanism; and

**Note: Examples of possible future coordination actions between RASG-APAC and APANPIRG include, but are not limited to, the following:**

- Involvement of RASG-APAC APRAST and APANPIRG RASMAG in each other's activities;
- Establishment of an analysis body (similar to the RMA/EMA models that report to RASMAG for vertical and horizontal safety analysis) that manages ATS safety incidents/concerns/occurrences for onward reporting to RASG-APAC APRAST for further action;

## 2. Lead Regional Group Responsibilities

### 2.1 Aerodromes related topics

<b>Coordination Item</b>	<b>PIRG</b>	<b>RASG</b>
Aerodrome Infrastructure and Adjacent Land Use	X	
Runway Safety Programmes		X
Runway Safety Teams		X
Bird/Wildlife Management Programmes/Strike Incidents		X
Ground Operations, FOD, Ramp Procedures		X

### 2.2 ANS related topics

<b>Coordination Item</b>	<b>PIRG</b>	<b>RASG</b>
RVSM/LHDs (RASMAG)	X	
Other ATS Incidents	X	
ATS Phraseology	X	
Civil/Military Coordination	X	
SAR	X	

### 2.3 Other topics

<b>Coordination Item</b>	<b>PIRG</b>	<b>RASG</b>
Sistemas de Gestión de la Seguridad Operacional (SMS)		X
Language Proficiency Requirements (LPR)		X
Sistema de alerta de tráfico y evasión de colisión II (ACAS II)		X
Pressure Altitude Responding Transponder		X

**APPENDIX B**

**FORM TO FOLLOW UP ON THE PROGRESS ON INDICATORS AND TARGETS FOR THE  
CAR/SAM REGIONS BY GREPECAS**

**Revision: July 2015**

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



Indicators		CAR		SAM	
		Current Value	Goal December 2016	Current Value	Goal December 2016
<b>10. Implementation of domestic IP networks</b>	% of SAM States with IP communication networks implemented	N/A	N/A	40%	80%
<b>*11. Aerodrome Certification (*)</b>	% certified aerodromes	35%	48%	12%	20%

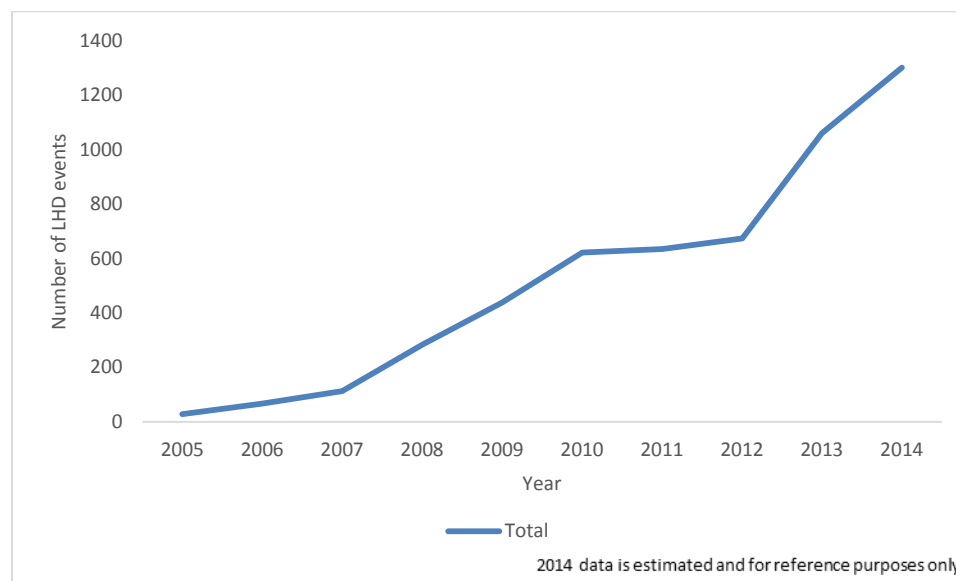
(\*) Safety oversight issued but managed by GREPECAS

## APPENDIX C

Text proposed for consideration by RASG-PA for its inclusion in the Sixth Edition of the Annual Safety Report.

- The CAR/SAM Regional Monitoring Agency (CARSAMMA), in coordination with the “Scrutiny Working Group” (GTE) of GREPECAS and the States of the CAR and SAM Regions developed a methodology for analyzing and evaluating of Large Height Deviations (LHDs) for the oversight of system performance and to increase the safety level in the Reduced Vertical Separation Minimum (RVSM) space of the CAR and SAM Regions, by evaluating both the technical risk (affected by reliability and accuracy of aircraft avionics) and operational risk (affected by human and technological elements on ground). In 2013, the total risk was higher than the Target Level of Safety (TLS) regionally agreed. Particularly, it was found a lack of effective coordination in the South Atlantic Flight Information Regions (FIRs) involved in controlling the traffic between Falkland and Ascension Islands, **accounting for the 25% of the total risk** in the CAR and SAM Regions.
- The LHD events evolution, for the period from 2005 to 2014 is presented in the following figure. Note that 2014 LHD number is estimated and only used as a reference.

a) *LHD events distribution per year. 2005-2014. CAR and SAM Regions (CARSAMMA)*



As shown in the previous figure, there was a significant increasing trend throughout the period. This do not actually means an increased risk level, but further analysis should be conducted in order to determine if it could be related to an improved reporting culture, as a result of the long sensitization process of carried out in the region since the implementation of RVSM.

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

Under this agenda item, the following papers were presented:

- Agenda Item 3.1:  
WP/09 – *Follow-up to the activities under Project A1 (PBN implementation) and Project A2 (Air navigation system in support of PBN) (Secretariat)*  
WP/21 – *PBN Implementation indicators (IATA)*
- Agenda Item 3.2:  
WP/10 – *Follow-up on the activities of Project B1 (Improve demand-capacity balancing) and Project B2 (Flexible use of airspace) (Secretariat)*
- Agenda Item 3.3:  
WP/11 – *Follow-up on CAR/SAM automation and ATM situational awareness project activities (Secretariat)*
- Agenda Item 3.4:  
WP/12 – *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/13 – *Follow-up of aerodrome project activities (Secretariat)*  
WP/20 – *Runway excursion mitigation (United States)*
- Agenda Item 3.6:  
WP/14 – *Review of the AIM programme (B0-DATM) projects (Secretariat)*
- Agenda Item 3.7:  
WP/15 – *Projects under the Aeronautical Meteorology Programme (B0-AMET)(Secretariat)*  
IP/05 – *Plan de Contingencia por Cenizas Volcánicas para la Región de Sudamérica (VACP/SAM) (Only in Spanish)*
- Agenda Item 3.8:  
WP/16 – *Follow up to the state-industry collaborative process for its transition from current systems to those specified in the ASBU (IATA)*

## GREPECAS Programme 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 implementation progress status from GREPECAS/17 Meeting to the PPRC/3 Meeting, of Programme A project activities: *Performance-Based Navigation (PBN)*

- Project A1 “*PBN Implementation*” CAR Region
- Project A1 *PBN Implementation*” SAM Region
- Project A2: *Air Navigation Systems in Support of PBN*” SAM Region

#### *Project A1 “PBN Implementation” CAR Region*

3.1.2 The Meeting took note that in order to support PBN implementation, two training events were carried out: the ICAO NAM/CAR/SAM Performance-Based Navigation (PBN) Approach Procedure Design Workshop (Mexico City, Mexico, 17 – 28 November 2014) and the Workshop on Regional Implementation on Performance-Based Navigation PBN Airspace Redesign for the CAR Region Mexico City, Mexico, (4 to 8 May 2015).

3.1.3 The Meeting was also informed on the following PBN procedures progress:

- PBN APV (BARO-VNAV) approach 90%, remaining pending for 2015 the implementation in Belize, Mexico and Nicaragua
- all upper airspace routes implemented with RNAV 5 procedure
- 21 SID procedures
- 145 with STAR procedures

#### *Project A1 “PBN Implementation” SAM Region*

3.1.4 The Meeting took note on the project framework progress since GREPECAS/17:

- a) 21% PBN national plans update out of 50% foreseen to reach in 2015.
- b) CO<sub>2</sub> annual reduction (51.132 tons in 2014 + 6.738 tons in the first semester of 2015). This data exceeds in more than 11.000 tons the Bogota Declaration goals.
- c) 20% RNAV Routes implementation reaching 58% and 2% remaining to reach the goal of 60% for 2016.
- d) 42% on action plans development for selected airspace redesign applying PBN out of 50% goal for 2015.
- e) SIDs/STARs PBN implementation is 64.29% and 60% Bogota Declaration goal has been exceeded.
- f) CDO and CCO operational techniques application progress is 4.52%, which represents 10% of the Bogota Declaration goal, which intends to reach in 40% of that technique application.
- g) Two regional Workshops.

*Project A2 “Air Navigation Systems in Support of PBN” SAM*

3.1.5 The Meeting took note that since GREPECAS/17 Meeting the executed activities were the following:

- Implementation of the forecast RAIM availability via web in order to support PBN operations (16 November 2014) is available in the webpage [www.satdis.aero](http://www.satdis.aero)
- GBS partial tests were concluded in the Antônio Carlos Jobim International Airport, Rio de Janeiro (SBGL), and its behaviour with the ionosphere in order to be completely used for CAT 1 operations; nevertheless, the outcome obtained on it was not conclusive and it is expected to have final tests for mid-2016.

3.1.6 Regarding the proposal of integrating activities of Project A2 to Project A1, the Meeting proceeded to its approval, and therefore PBN programme of the SAM Region will have only one project that will include operational and technical aspects.

**Difficulties Encountered in PBN Programme Projects Implementation**

3.1.7 The Meeting took note that as part of the PBN implementation difficulties is the lack of collaboration between neighbours. This results in lack of harmonization which does not facilitate coordination and provision of Air Traffic Control (ATC) service, as well as limited use by operators. Other identified areas as an issue were the training in PBN related matters and the inefficient application of longitudinal separation across the NAM/CAR/SAM Regions. While some FIRs were using as low as 5NM in their own airspace, based on existing procedures and LoA's, in most cases, a separation of ten (10) minutes (80NM) was required for transfer from one FIR to the next one.

3.1.8 The Meeting was also informed that although significant progress has been made on PBN implementation, it has been identified the need to increase the quantity of qualified human resources, enhance training programmes, and improve PBN operational approval programmes. Accordingly, the States need to review and improve their own PBN implementation programmes with the assistance of the Regional Offices.

3.1.9 The Meeting also considered the need to harmonize the indicators and criteria used by the CAR and SAM Regions to verify the success in the PBN implementation for both Regions, in order to guarantee which improvements in efficiency and safety are truly achieved and identify States that need more support in order to achieve appropriate levels of PBN implementation.

**Other PBN Business**

3.1.10 The Meeting took note of the CANSO offer on two documents (developed by CANSO only in English) named: *Recommended Key Performance Indicators for Measuring ANSP Operational Performance and Performance-Based Navigation Best Practice Guide for ANSPs*, which are available to States and Air Navigation Service Providers (ANSPs) to use as guide on PBN implementation in their corresponding organizations. CANSO also offered to collaborate with PBN training, in this respect is organizing a Seminar on best PBN implementation practices for controllers from 18 to 20 October 2015, for ease reference please visit the following website: [www.canso.com](http://www.canso.com)

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

3.2.1 The Meeting took note of the progress since GREPECAS 17 in the following projects of Programme B: *“Air traffic flow management”*

- Project B1 *“Improve demand-capacity balance”*
- Project B2 *“Flexible use of airspace”*

*CAR B1 Project “Improve demand and capacity balance”*

3.2.2 The Meeting took note that technical assistance for the Air Traffic Flow Management (ATFM) implementation held in Jamaica (October 2014), Trinidad and Tobago (June 2015), and Dominican Republic (July 2015). For Cuba it is scheduled by the end of July 2015.

3.2.3 Likewise, the Meeting was informed of two training events held: one Course/Workshop for the ATFM implementation in COCESNA, (16 to 20 February 2015), and an ATFM Workshop for the CAR and SAM Regions (Panama City, Panama, from 25 to 29 May 2015).

3.2.4 In relation with ATFM units or positions (FMU/FMP), the Meeting took note that Dominican Republic, Jamaica, Mexico, Trinidad and Tobago, United States (Miami Oceanic and San Juan) and COCESNA, in coordination with Belize, Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua, have already implemented it representing more than 50% implementation in the FIRs of the CAR Region.

3.2.5 To complete ATFM implementation in the CAR Region, the Meeting considered that States require implementing ATFM Letters of Agreement and/or updating their operational Letters of Agreement between ACCs of adjacent FIRs with ATFM procedures, which should be coordinated timely by the units or positions ATFM (FMP/FMU) properly implemented. Likewise, it was considered that in the short-term implementation of ATFM procedures and the reduction of ATC separation require a proposal for amendment to ICAO Doc 7030. Therefore, the Meeting formulated the following draft conclusion:

**DRAFT****CONCLUSION 3/4:****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, 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.

Project B2 “*Flexible use of airspace*” CAR

3.2.6 The Meeting took note that more than 80% of the States have agreements among ATS civil authorities and appropriate air defence units which allows optimizing ATS airspace and SAR service supply.

3.2.7 Likewise, the Meeting was informed of the NAM/CAR/SAM Meeting/Workshop to Improve Regional Search and Rescue (SAR) System and Civil/Military Coordination results (Havana, Cuba in April 2015).

*SAM B1 Project “Improve the balance between demand and capacity*

3.2.8 The Meeting took note of the following activities and progress performed in the SAM Region:

- Two training events: a Theoretical/Practical Course on ATFM Procedures (November 2014 Rio de Janeiro, Brazil) and a Workshop on ATFM implementation for the CAR and SAM Regions, Panama City, Panama (May 2015)
- 21% of States have realized the calculation of runway capacity and ATC sectors
- It is expected to reach 100% by 2016. 15% is missing

- No progress has been made on positions or ATFM units (FMU/FMP) implementation in the SAM Region States ACCs. The goal is 100% of the ACC units with, at least, one position or ATFM unit. 65% implementation is missing

3.2.9 The Meeting considered the need to complete the installation of position or flow management unit in the ACCs in the SAM Region, amendments to the operational letters with procedures inclusion that avoid strategic measures application and the need to reply the ATFM training received by the rest of the ATM national community. In this regard the following Draft Conclusion was formulated:

**DRAFT**

**CONCLUSION 3/5:**

**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 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.

**Difficulties Encountered in ATFM Programme Project Implementation**

3.2.10 While analyzing the causes that could be delaying the effective implementation of the ATFM or ATFM positions (FMU/FMP), the Meeting observed that some States think that they have not achieved traffic levels in their airports and ATC sectors that demand to implement the elements and functions of an air traffic flow management system, and other States recognize that are on the limit of their capacity, but by budget issues, available human resources, organizational or other, have not achieved to start or progress in their ATFM system.



3.2.11 In this regard, the Meeting was informed that the need of implementation of at least one position ATFM (FMP) in the ACC does not consist in the traffic volume, that regularly, could have a determined FIRs, but in the programmed or unexpected events that exceed the capacity values established in that FIR. Among these, meteorological, volcano, and/or CNS or ATM interruption services by different causes.

3.2.12 The Meeting took note of the States that have not yet implemented a minimum ATFM service are the States that issue more NOTAMs, establishing the flow control with entrance and exit restrictions in the different FIR bordering points, producing a domino's effect that affects other neighboring FIRs and some of them without radar equipment, which causes an impact, not only on the capacity but also in safety.

3.2.13 Considering the increase of CAR Region operations, the Meeting agreed that a high-priority Project in the short term (2015-2016) be carried out for the comprehensive review of the lower and upper airspace, in relation with PBN implementation, in order to find improvements in the flexible use of airspace and at the same time increase ATS capacity.

3.2.14 Finally, the Meeting recognized FAA's cooperation on ATFM implementation in the CAR/SAM Regions, mainly by the experts Joe Hoff and Ron Fischer, who contributed in the ATFM Manual development for both regions.

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

3.3.1 The Meeting took note on the progress of the Project that defines Programme C: *ATM automation and situational Awareness*:

- *Project C1 - Automation and Improved ATM Situational Awareness for the CAR Region*
- *C1 – Automation for the SAM Region*
- *C2 - Improved ATM Situational Awareness for the SAM Region*

*Project C Automation and Improved ATM Situational Awareness for the CAR Region:*

3.3.2 The Meeting took note that in spite of some delays, significant progress had been achieved in the programmed deliverables such as:

- FPL 2012 Converters Table update delivered
- Guides for FPL duplicated/errors resolution/mitigation were developed.
- An implementation Action Plan Template using NAM AICD was developed.
- Several AIDC MOU proposals are developed and reviewed (deliverable is ongoing to August 2015)
- An ICD comparison was developed in accordance to GREPECAS/17/9 conclusion
- Analysis of operational scenarios examples were developed for the comprehensive and effective implementation of the appropriate AIDC ICD
- Initial ADS-B Implementation Operational Concept (CONOPS) developed

- Development of an ADS-B Automated Data Processing capability Status Table
- A guidance document on ADS-B Station Technical Specification
- A proposal for surveillance system Plan, including ADS-B and MLAT was delivered
- AIDC operational implementation between United States (Miami) ACCs, Cuba, Mexico and COCESNA, with this it has been achieved 42.86% of AIDC implementation in the CAR Region

3.3.3 COCESNA confirmed to the Meeting the AIDC implementation with Cuba and Mexico thanks to the assistance provided by the GoTeam of Project RLA/09/801 and informed of the AIDC implementation tasks between ACC CENAMER and El Salvador, Guatemala and Nicaragua APPs. Similarly, it confirmed the progress voiced by the Project C for the AIDC and ADS-B implementation tasks. Finally, Dominican Republic commented on its plans and works to implement AIDC with United States (Miami and San Juan ACCs) and urged to its adjacent FIRs (Curacao and Haiti) to implement AIDC.

*Project C1 – SAM Automation*

3.3.4 The Meeting could note that from the activities accomplished by this Project, the preoperational AIDC implementation between Lima ACC and Guayaquil ACC, between Guayaquil ACC and Bogota ACC, and between Bogota ACC and Lima ACC were emphasized. Similarly, 160 controllers from the ACCs of Bogota, Guayaquil, Lima, Panama and Santiago were trained with hands-on AIDC courses. In this way 20% of the total scheduled *Bogota Declaration* targeted AIDC implementations (15) was achieved.

3.3.5 Regarding the new MoU for new system interconnections implementation for the new interconnection systems, there has not been progress respectively since GREPECAS/17, In spite of this, interconnection tests have been performed, as well as the operational implementation of some of these. Therefore, the project considered that elaboration of new MoUs will be only made for interested States.

*Project C2 SAM Region – Improve ATM situational awareness in the SAM Region:*

3.3.6 In relation with this project, the *Technical/Operational considerations Guide for the full MLAT implementation and the action plan for the ADS-B implementation for the SAM Region* stands out.

3.3.7 The Meeting took note that the corresponding activities to this project are currently the elaboration of guides that support the improvements on the situational awareness implementation, the elaboration of the orientation guide with technical considerations for supporting the ATFM, programmed to be completed on April 2016.

**Difficulties encountered in Automation and improve ATM Situational Awareness and Conclusions**

3.3.8 The Meeting took note that in the SAM Region some of the States have not provided needed terms to its technical and operational personnel in order to complete the projects implementation activities producing unnecessary delays that affect safety such as, the exchange of AIDC radar data interconnection. It was observed the delay in some deliverables due to lack of response and Project member's input in the CAR Region.

3.3.9 Before the proposal of considering ADS-B implementation in the SAM Region, the Meeting approved the Project C2 extension to include these tasks. It is expected to complete project description by the end of 2015.

### **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 on the projects that forms Programme D: Ground-Ground and Ground-Air Telecommunications Infrastructure

- Project D - *ATN Infrastructure in the CAR Region and its Ground-Ground and Ground-Air Applications*
- D1, *SAM ATN Architecture*
- D2, *Ground-Ground/Air-Ground Applications, of the Ground-Ground/Air-Ground Communication Infrastructure programme for the SAM Region*

*Project D - ATN infrastructure in the CAR Region and its ground-ground and ground-air applications for the CAR Region:*

3.4.2 The Meeting took note of the following progress:

- Successful and complete modernisation of the regional MEVA network, called MEVA III, which installation and commissioning were completed between February and March 2015. This activity included training and OJT for all members of the MEVA network, as well as the provision of equipment, spare parts, documentation, local monitoring, supervision and testing, in addition to failure management, monitoring and network performance optimisation.
- Satisfactory performance during 2014-2015, as assessed at the MEVA III-REDDIG II meeting (Aruba, 25-26 May 2015)
- New IPv4 addressing scheme for the CAR Region, version 1.1
- The regional AMHS implementation matrix for the CAR Region was updated. With the new MEVA III network, it is foreseen that two AMHS circuits will be implemented in 2015, and two more are in the testing phase
- The NAM/CAR regional AIDC implementation plan was updated
- An implementation action plan template was developed using the NAM ICD
- An ICD comparison was conducted pursuant to Conclusion GREPECAS/17/9
- A CPDLC/ADS-C implementation guide has been provided, as well as an action plan template to guide CPDLC/ADS-C implementation
- The implementation of the CDPLC/ADS-C service in the Central America and PIARCO FIRs is foreseen for late 2015

*Project D1 - SAM ATN Architecture*

3.4.3 The Meeting took note of the following progress and Project activities:

- Implementation and operation of the new REDDIG II digital network (first week of February 2015). The new REDDIG II digital network is a mixed satellite and ground network completely based on IP technology. Progress of 100% was made since GREPECAS/17.
- Technical specification elaboration and assessment for the new node in the REDDIG II, to be installed in Brasilia. Its integration and operation are foreseen by January 2016.
- Installation and operation of the new REDDIG II node in Honduras for its interconnection with MEVA III in April 2015
- There were held two training events for a theoretical/practical course on REDDIG II dictated in 4 sessions from 11 August to 5 September 2015 in Rio de Janeiro, Brazil and a network management course held in Manaus, Brazil, from 21 to 24 April 2015.

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

3.4.4 The Meeting took note of the following difficulties, progress and activities:

- Pending activities of this project are the operational AMHS and AIDC implementation. The correspondent activities of the AIDC implementation were coordinated through Project C1 of ATM automation and it is detailed in section 3.3 of this item of this agenda item.
- No new AMHS interconnection was implemented since GREPECAS/17 meeting, remaining only, to date the existing AMHS interconnections (Peru – Colombia, Peru – Ecuador, Argentina – Paraguay, Guyana-Suriname).
- By the end of 2014, it was foreseen to complete final AMHS interconnection tests Brazil-Peru, Brazil-Argentina, Peru-Argentina and Brazil-Paraguay using in this regard a list of procedures (aligned with the implementation AMHS interconnection guide in the SAM Region) supplied by Spain and used for the AMHS test performance between Brazil and Spain. The AMHS interconnection tests between Brazil and Spain were positive, but operational implementation is pending and foreseen for the second semester of 2015.

**Difficulties Encountered in the Ground-ground and Air-ground Telecommunications Infrastructure Programme Projects Implementation and Conclusions**

3.4.5 Unfortunately, it has not been possible to progress on the AMHS interconnection tests in the CAR/SAM Regions, due to the implementation of REDDIG II, which has demanded a great effort by the technicians of the involved States, in addition to problems faced with the existing AMHS operational circuits. In this sense, the involved States noted that they would make utmost efforts to complete the interconnections as scheduled, taking into account their commitment under the *Port-of-Spain and Bogota Declarations* to complete all the interconnections by the end of 2016.

3.4.6 When analyzing the implementation of AMHS systems and their interconnection in the CAR and SAM Regions, the Meeting observed that AMHS application has not been exploited in its full potential, and that it operates in the same way as AFTN, only with alphanumeric characters and does not use the messages annex delivery, annexes that could contain various information such as tables and graphs.

3.4.7 The Meeting convened that States should take advantage of AMHS, as well as the establishment of greater capacity and speed communication networks, sending messages with annexes attached, previously coordinated among units, where messages are exchanged, in order to increase the information required by these units, and achieve a better situational awareness. When a thorough use of AMHS is made, the use of AFTN will decrease through Gateway, and therefore the AMHS interconnection will increase in the regional and interregional levels.

3.4.8 In this sense, the Meeting considered the need of creating a working group to start a strategy development and implementation to obtain an effective AMHS use. The working group would be integrated by Brazil, Dominican Republic, United States and the programmes D coordinators of the CAR/SAM Regions, the Meeting and formulated the next draft decision:

**DRAFT**

**DECISION 3/6**

**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 AMHS operational use, providing it to the Region disposal as soon as practicable.

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

3.5.1 The Meeting took note of the progress in the Aerodrome Programme (F) and its respective Projects

- Project F1– *Improvements to aerodrome certification in the CAR Region;*
- Project SAM AGA F1 - *Aerodrome certification and*
- Project F2 *Improve Runway Safety for the CAR and SAM Regions*

*Project F1– Improvements to aerodrome certification in the CAR Region:*

3.5.2 The Meeting took note of the following progress:

- Assistance Mission (TEAM) to Dominican Republic on aerodrome certification implementation (November 2014) to start with the certification process (it has 8 international aerodromes)

- Assistance to Saint Lucia (June 2015) to start aerodrome certification (Hewanorra Intl.);
- Assistance Mission (TEAM) to Honduras on aerodrome certification Implementation (San Pedro Sula – July 2015)
- Certified aerodromes number has increased 10%, reaching to date 35% and as a result the number of deficiencies reported in the GANDD has been reduced. It is foreseen to reach 40% by the end of 2015, and achieve the goal expected in the Port-of-Spain Declaration, which is 48% by the end of 2016

3.5.3 Dominican Republic discussed the progress executed for aerodrome certification based on Presidential Decree Act number 197-15 of 8 June 2015, which provides a 6-month period from the publication date for the international public aerodromes operators to start the formal certification, in accordance with National Regulations.

*Project F2 – Improve Runway Safety in the CAR Region:*

3.5.4 The Meeting took note that the Project F2 for the CAR Region has basically gathered information on the status from several international airports to verify SARPs compliance. There still is a high level of non-compliance in signage, visual aids, lightning, runway strips and RESAs, among others. It is planned to carry out the Workshop on Best practices to prevent Runway Incursion/Runway Excursions, from 11 to 14 August 2015 in the CAR Region, to discuss the analysis made to the survey and to propose better practices of some States to avoid and/or improve taxiway designs to prevent runway incursions with the corresponding visual aids complement.

3.5.5 Cuba notified on RST national level development, with the resolution issued for its formulation, which are already operating to improve runway safety and are fully part of the inspections checklists.

*Project SAM AGA F1 – Aerodrome certification*

3.5.6 The Meeting took note that current SAM certified international airports to January 2015 are 12 (12%) from the 8 originally registered, that is an increase of 50%. The proposed goal for December 2016 in the *Bogota Declaration*, of 20% certified international aerodromes of the Region. With the introduction of PANS LAR AGA, it is expected that States will be able to significantly increase the percentage of certification.

3.5.7 Bolivia notified on difficulties to comply with aerodrome certification and that from the 4 international airports of Bolivia, Tarija aerodrome will probably not be certified.

3.5.8 The Secretariat informed that in RLA/09/901 Project (SRVSOP), a new LAR on aerodrome certification with no conformity will be developed and with it a new aerodrome certification approach is proposed.

*Project SAM AGA F2 - Runway safety improvement*

3.5.9 The Meeting took note that no progress had been considered since GREPECAS/17 meeting.

### **Difficulties Encountered in the AGA Programme Projects Implementation and Conclusions**

3.5.10 The Meeting noted the need for support of the officers appointed to AGA Projects in the CAR and SAM Regions, on behalf of their corresponding administrations, which is reflected on the Projects tasks compliance.

3.5.11 The Meeting accepted that the duration of the SAM Project F1 be extended for a period of three years (until 2018), considering that the activities concerning this project are related to the amendments of ICAO SARPs (Annex 14), especially the introduction of amendment 12 presenting PANS Aerodromes. The Meeting deemed appropriate to extend the Project, so that regulation and its harmonization be adequately introduced in the regional regulations. Considering this extension, Brazil requested to hold only one annual meeting to follow-up this project.

3.5.12 The Secretariat notified that under PANS-AGA expectations and aeronautical studies, it was estimated that certification issues could be accelerated based on “Non conformities” found.

3.5.13 Based on the F Programme discussion, the Meeting highlighted:

- a) The need to educate airport operators to accelerate the aerodrome certification process;
- b) The consideration on aeronautical studies and PANS-AGA in aerodrome certification activities; and
- c) That the authorities recognize preliminary progress on aerodrome certification in order to promote certification, recognizing completed progress.

#### *Other considerations*

3.5.14 The Meeting took note of the technical solution in aerodromes presented by United States through WP/20 in order to mitigate runway excursions, such as rubber removal, implementation of longitudinal grading of ¼ of runways distance remaining signs, markings, signage, and lighting, runway grooving and Runway End Safety Areas (RESAs). In this regard, the Secretariat thanked the information provided by United States and the offering to support and concluded that these technical solutions are already included in the Guideline documentation and ICAO Annex 14, with the exception of Distance Remaining Signs (DRS), that is currently being studied by the ICAO Aerodrome Operations Panel (ADOP).

### 3.6 Projects under the AIM Programme (B0-DATM)

3.6.1 The Meeting took note of progress of Project G concerning Aeronautical Information Management (AIM) in CAR and SAM Regions:

- G1 *Developments for the supply of electronic terrain and obstacle data (e-TOD) in the States* for the CAR Region
- G2 *Development of quality specifications applicable to the digital AIM environment* for the CAR Region
- G1 *Implementation of the provision of electronic terrain and obstacle data (e-TOD),*
- G2 *Implementation of aeronautical information exchange systems (AIXM)*
- G3 *Implementation of the quality management system in AIM units, for the SAM Region,*

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

3.6.2 The Meeting took note of the following progress:

- distribution of the document “Understanding ICAO e-TOD requirements” to the AIS of the Region
- promotion with the States of the establishment of Letter of Agreement (LoAs) with other States/International Organizations is also promoted, in order to collaborate in the e-TOD implementation in sub regional levels Eastern Caribbean (E/CAR), Central Caribbean (C/CAR), Central America)
- 47% of CAR States have reported progress on the implementation of the e-TOD action plans
- technical assistance to Costa Rica, Guatemala, Haiti and Mexico

Project G2 - “*Implementation of Aeronautical Information Exchange Systems (AIXM)*” - CAR Region

3.6.3 Regarding this project, the Meeting was informed on the following progress:

Implementation progress of about 80%:

- coordination with Trinidad and Tobago and COCESNA to establish Letters of Agreement with Antigua and Barbuda, Bahamas, Belize, Grenada, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines, and integrate them to Trinidad and Tobago, is being conducted with Trinidad and Tobago (in process of certification by 2015) and COCESNA as part of their corresponding Quality Management System (QMS) that are already implemented, for States to be information and validated data providers, using the procedures and processes, as well as the required formats for the QMS in each case
- technical assistance to Costa Rica, Guatemala, Haiti and Mexico
- CAR Region States have completed the QMS process and its certification



### ***SAM Region***

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

3.6.4 The detailed progress on e-TOD Project in the SAM Region is shown in **Appendix A** to this part of the report.

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

3.6.5 In this regard, the Meeting was informed that it started to show certain progress based on great human resources contribution on behalf of Peru and Uruguay, who have helped the Secretariat with these project deliverables.

Project G3 – “*Development of quality specifications applicable to the digital AIM environment*” SAM Region

3.6.6 Quality Management System implementation Project for processes that manage AIM dependencies has had progress in needed activities before certification; nevertheless, no concrete progress on certification has been made, which is the established required objective.

3.6.7 From the first roadmap phase on AIS to AIM transition, 84% progress was achieved; nevertheless, States that have delayed on quality AIM certification are also delayed to pass to the second digital phase. 16% remains to be completed in 2016.

3.6.8 The Secretariat estimates that before finalizing 2015, Argentina, Peru and Uruguay could be certified on AIM quality processes due to their progress. Colombia and Venezuela continue without certifying their AIM systems, and the more concerning delay in the quality implementation is identified for Bolivia, Guyana and Suriname systems.

### **Difficulties encountered in AIM Projects Implementation and Conclusions**

3.6.9 The Meeting observed important progress principally of QMS implementation and less in e-TOD in the CAR Region; nevertheless, in order to improve the programmes, the need of increasing the qualified human resources of the States is suggested, so they review and improve their own AIM implementation programmes with continuous assistance of ICAO NACC and SAM Regional Offices, based on the projects created with that end.

3.6.10 Several States agreed that e-TOD implementation for Area 2 for 12 November 2015 is difficult to comply with considering technical difficulties, training and human resources quantity, as well as the implementation high cost impact, and in this regard, the Meeting considered convenient to consult through the GREPECAS fast track procedure to all States from both Regions on their compliance expectations to Annex 15 indicated date. Considering this, the Meeting decided to formulate the following Draft Conclusion:

**DRAFT  
CONCLUSION 3/7**

**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.

3.6.11 The Meeting took note that Doc 9881 *Guidelines for Electronic Terrain, Obstacle and Aerodrome Mapping Information* will continue in a “disclaimer” status, and there are parts of it that should be reviewed, additionally there is no translation of the Manual to Spanish language, which makes difficult the work for States to carry on with the e-TOD implementation in the established dates.

3.6.12 Complementary, Doc 9839 - *AIM Quality Manual* has not yet been published on the planned dates. In this regard, it was recalled that this concern was shown during the last Assembly and to GREPECAS.

3.6.13 Taking into account all the above-mentioned, the Meeting considered convenient to insist on this need and decided to formulate the following Draft Conclusion:

**DRAFT  
CONCLUSION 3/8**

**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.

3.6.14 The Meeting considered that efforts must be strengthened to increase Service Level Agreements (SLA) in States that have not yet commenced and they should be completed in those States that have already begun their development.

3.6.15 The SAM Region equipment and training progress have been held and it is necessary to keep e-TOD evolution following implementation. In this regard, States are encouraged to send their experts to workshops and/or meetings in order to train regional experts.

3.6.16 The main component identified as articulator in the progress of Quality Management System Certification in the States is the senior management. When the high-level management is involved in obtaining the systems quality certification and its processes, it helps to detach the barriers in the management delaying the implementation.

3.6.17 At regional level, the *Bogota Declaration* obtains a commitment of the high-level management to certify quality in the AIM processes. This commitment needs to be replicated at a national level to obtain a certification in the committed term.

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

3.7.1 The Meeting took note on the progress of Aeronautical Meteorology Programme H

- H2 – *IAVW Implementation for the CAR Region*
- H3 – *QMS/MET Implementation for the CAR Region*
- H4 – *Optimization of OPMET exchange including SIGMETs (WS, WV and WC) warnings and meteorological alerts for the CAR Region*
- H2 – *IAVW Implementation for the SAM Region*
- H3 – *QMS/MET Implementation for the SAM Region*
- H4 – *OPMET exchange optimization for the SAM Region*

#### CAR Region

3.7.2 The Meeting took note that regarding **Project H2 – IAVW Implementation**, a multidisciplinary task force was created with the purpose of developing a model for volcanic ash dispersion; this activity will be resumed by the next RO/MET.

3.7.3 Regarding **Project H3 – QMS/MET Implementation** the Meeting considered the map of QMS/MET implementation status for the CAR/SAM Regions. This was presented by the World Meteorological Organization (WMO), which was presented in Appendix A to WP/15. The Meeting observed that, according to it, only one CAR Region State had completed its implementation process. The Secretariat clarified that this information did not reflected the reality, because in 2014 nine States in the Region had completed and implemented the QMS/MET. Central America is showing a great delay after verifying the progress level.

3.7.4 With regard to Project H4 - *OPMET exchange optimization*, the Secretariat informed that quarterly controls are still being prepared by the Brasilia Data Bank.

#### SAM Region

3.7.5 The Secretariat informed to the Meeting that among the activities of **Project H2 – IAVW Implementation**, the annual volcanic ash SIGMET exercise has been held on 11 to 12 December 2014. The Meeting considered the modification of tasks of Project H2, in order to introduce the revision of the SIGMET Guide and its alignment with the suggested template sent by Headquarters in 2014.

3.7.6 The Meeting has considered the corrections of QMS/MET implementation status in the SAM Region States. In PPRC/2 and GREPECAS/17, it was erroneously informed that every State had implemented QMS/MET: five certified States and seven States with a high percentage in the certification process. Nevertheless, the State information regarding the implementation has been verified, and 10 States have finished the implementation process, seven States have certified the implemented QMS/MET, and only one of the remaining uncertified three States has begun the certification process.

3.7.7 Regarding the same project, the Meeting took note on the need of modification of the **Project H3 – Implementation of QMS/MET** following the ISO 9001 Standard modification by the end of 2015.

3.7.8 The Meeting observed that the controls of the OPMET exchange by the Brasilia Data Bank are being held quarterly. The Secretariat informed that, according to these controls, a letter has been sent to the SAM Region States to request the revision of procedures for OPMET messages development and transmission.

3.7.9 The Secretariat informed the Meeting on the actions taken by NACC and SAM Regional Offices in order to follow-up on the GREPECAS Conclusion 17/11, presented in WP/15. As a product of these actions, the Meeting formulated the following draft conclusion:

**DRAFT**

**CONCLUSION 3/9**

**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.

**Difficulties Encountered in the Development of Projects and Conclusions**

3.7.10 Difficulties in the SAM Region are present in the Coordination of Volcanic ash performance exercises, since SAM Region is under two VAAC responsibilities. The results of 2014 SAM Regional Office exercise of VAAC associated States have not been received from Washington.

3.7.11 A good coordination is required to have the results of the volcanic ash exercises in a minimum time, in order to analyze and issue valid conclusions when assessing them.

3.7.12 In the SAM Region States, where no QMS MET has been implemented, there is no real commitment observed for the implementation, especially, related to the budgetary support.

3.7.13 To fulfill the QMS/MET implementation process, it is necessary to have support of the States authorities translated in a budget provision to enable the final implementation and certification processes.

3.7.14 Regarding problems with OPMET message formats, with high percentage of OPMET data that does not match the template with Annex 3 have been detected by users and by the Brasilia OPMET Data Bank. Additionally, it has been noted that some States do not provide SIGMETs information.

3.7.15 States should foresee recurrent courses to the air meteorological personnel, in relation with formats and OPME messages elaboration, as well as update.

3.7.16 The Meeting took note of the Contingency Plan for Volcanic Ash carried out in the SAM Region for application in the South America Region in accordance with the template recommended by the International Volcanic Ash Task Force (IVATF). Likewise, the Meeting took note of the Volcanic Ash Contingency Procedures for the NAM/CAR Regions, which are published in the ICAO web site and which are applicable in the CAR Region.

### **3.8 Project Collaborative Process States-Industry for the Transition from the Current Systems to those Specified in Aviation System Block Upgrade (ASBU)**

3.8.1 The Meeting took note of the difficulties encountered in the project - *Project collaborative process States-Industry for the transition from the current systems to those specified in in ASBU Project*, and of the strategy change of a regional project to a pilot project in a State to be defined, which results will be shared with the region in benefit of everyone. In this regard, the Meeting considered necessary to amend the project to reflect this new strategy IATA will present the new project to the Secretariat of GREPECAS for end of September 2015.

## APPENDIX A

## SAM STATES PROJECT G1 PROGRESS: IMPLEMENTATION OF THE PROVISION OF ELECTRONIC TERRAIN AND OBSTACLE DATA (E-TOD)

## AREA 1 - Terrain

1.1 Information regarding Area 1 requirements compliance on terrain survey was collected, with the following results:

- a) **Argentina, Brazil, Chile, Colombia, French Guyana, Peru and Venezuela** have a Digital Elevation Model for the development of Area 1. The progress registered was from 28% to 49%, the amount of States within the Region with Digital Models **Increase 21%. Remaining 51% to be completed in 2016.**
- b) Regarding the compliance of Table 8-1 of Annex 15 for the terrain requirements of Area 1, the following States are complying with the requirement: **Argentina, Chile, French Guyana and Venezuela**. The compliance progress registered in the Region is from 14% to 28%. As Peru has partial compliance, it has not been computed until it fully meets the requirement. **Increase 14%. Remaining 72% to be completed in 2016.**
- c) Regarding the compliance of Standard ISO 19119 for the Digital Model, the following **Argentina, Chile, Colombia, French Guyana, Peru and Venezuela** report the compliance in the Region from 21% to 42%. **Increase 21%. Remaining 58% to be completed in 2016.**

## AREA 1 - Obstacles

1.2 Information regarding Area 1 requirements compliance on obstacles survey was collected, with the following results:

- a) Regarding the obstacle database disposition that encompasses Area 1, the following **Argentina, Brazil, Colombia, French Guyana and Uruguay** comply with the requirement, having a compliance percentage in the Region from 28% to 35%. **Increase 7%. Remaining 65% to be completed in 2016.**
- b) **Brazil, Uruguay and Venezuela** comply with the obstacle requirements established in Table 8-1 for Area 1, the implementation level in the Region goes from 14% to 21%. **Increase 7%. Remaining 79% to be completed in 2016.**

## AREA 2 - Terrain

1.3 Regarding Action Plans to obtain electronic terrain data in Area 2a, **Argentina, Bolivia, Brazil, Chile, Panama, Peru and Uruguay** reported progress, moving the Region from a 28% to a 49% of compliance. **21% increase. Remaining 51% to be completed in 2016.**

1.4 When analysing the compliance in the provision of terrain data corresponding to take-off trajectory, States that reported to have developed an Action Plan are **Argentina, Brazil, Chile, Panama, Peru and Uruguay**, moving the Region from a 21% to a 42% of compliance. **21% increase. Remaining 68% to be completed in 2016.**

1.5 Furthermore, there has been little progress in the Region regarding the provision of electronic terrain data corresponding to the area demarcated by the lateral extensions of the aerodrome obstacle limitation surfaces. Bolivia, Brazil, Chile, Panama and Peru showed some implementation progress moving from 28% to 35%. **7% increase. Remaining 65% to be completed in 2016.**

#### **AREA 2 - Obstacles**

1.6 **Argentina, Bolivia, Brazil, Chile, Panama, Paraguay and Peru** developed Action Plans for the compilation of data in Area 2a, referring to obstacles that penetrate obstacle limitation surfaces in accordance with Appendix 8 of Annex 15, which indicates a progress from 35% to 49% in the Region. **14% increase. Remaining 51% to be completed in 2016.**

1.7 Likewise, Argentina, Brazil, Chile, Panama, Paraguay and Peru reported progress in their Action Plans for the provision of electronic data on objects protruding flat slopes of 1.2% in respect of the take-off trajectory, thus making a progress in the Region's implementation from 28% to 42%. **14% increase. Remaining 58% to be completed in 2016.**

1.8 Regarding the provision of electronic data in aerodrome obstacle limitation surfaces, Argentina, Bolivia, Brazil, Chile, Panama and Peru developed Action Plans for the compliance of the requirement; the progress in the Region has been from 28% to 42%. **14% increase. Remaining 68% to be completed in 2016.**

1.9 Equally in the Region, **Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, French Guiana, Panama, Paraguay, Peru, Suriname and Uruguay** have defined an e-TOD Implementation Technical Specifications Manual. **84% increase. Remaining 16% to be completed in 2016.**

#### **e-TOD Training in the SAM Region**

1.10 Regarding the e-TOD training programme, Argentina, Chile and Uruguay informed of their respective training programmes; this results in a progress from 21% to 42% in the Region. **21% increase. Remaining 58% to be completed in 2016.**

1.11 Regarding the inclusion of training operational concepts, a progress from 14% to 49% was confirmed in the Region. **35% increase. Remaining 51% to be completed in 2015.**

1.12 Regarding the equipment and necessary programmes to manage e-TOD information, the Region has moved from 42% to 49% in the compliance of this requirement. **7% increase. Remaining 51% to be completed in 2015.**

1.13 Regarding the Service Level Agreements (SLA), there have been difficulties to capture the progress since data providers have been reluctant to sign agreements with AIM Offices. The reason are the AIM requirements to comply with SARPs on data quality, precision and integrity. In this sense, the Region had a lower progress than expected, as shown in the table below. **The current implementation is only 21%.**

1.14 Other progress related to this Project is the implementation of **Geographic Information Systems (GIS)**, with an execution percentage of **56%** in States in the Region.

2015 State	% of States with Automated Systems or GIS = <b>56%</b>	% of States with Guidance Document and approved Action Plan = <b>100%</b>	% of States that have established SLA Agreements = <b>21%</b>
ARG	YES	YES	YES
BOL		YES	
BRA	YES	YES	
CHI	YES	YES	
COL	YES	YES	
ECU		YES	
FGY	YES	YES	
GUY		YES	
PAN	YES	YES	
PAR		YES	
PER	YES	YES	YES
SUR		YES	
URU	YES	YES	YES
VEN		YES	



**Agenda Item 4: Monitoring and Reporting of the Implementation of Air Navigation in the CAR/SAM Regions Items Related with the Organization of GREPECAS**

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

- WP/17 *Progress on the Implementation and Follow-Up on the Air Navigation Targets Established on the Port-of-Spain and Bogota Declarations and the Regional Performance-Based Air Navigation Implementation Plans (Secretariat)*

4.1 The Meeting analysed the activities developed by CAR and SAM Regions in order to foster the measurement, monitoring and reporting of the goals established in the regional plans and in the Bogota and Port-of-Spain Declarations and the development of national plans aligned with the Global Air Navigation Plan (GANP) (4<sup>th</sup> edition) and the Regional Air Navigation Performance-based Plans for NAM/CAR Region (RPBANIP) and for SAM Region (SAM PIB).

4.2 The Meeting took note on the way GREPEAS informs the Air Navigation Commission on the operational improvement through the filling of the format to follow-up on the progress of indicators and targets detailed in the WP/06. Moreover, the RPBANIP and SAM PBIP planning and implementation elements, and their respective target follow-up will be included in Volume III of the CAR/SAM eANP.

*CAR Region*

4.2.1 The Meeting took note that NACC Regional Office collects information on the air navigation progress through regional implementation groups, such as the NAM/CAR Air Navigation Implementation Working Group (ANI/WG) through the use of the Air Navigation Report Forms (ANRFs).

4.2.2 The Meeting also took note that with the purpose of facilitating the development of national performance and ASBU based navigation plans, the ANRF was amended (Appendix to WP/17) including the following improvements:

- air navigation metrics analysis
- concept comprehension facilitation
- simplification of the measurement process of national targets and operational benefits

4.2.3 Moreover, the Meeting took note of a workshop on Performance-Based Navigation planning/ASBU Methodology to be held in the first half of 2016 in NACC Regional Office for the elaboration of air navigation national plans, the use of reviewed ANRF, ASBU targets and modules analysis, etc.

*SAM Region*

4.2.4 Regarding SAM Region, the Meeting took note that the progress measurement of air navigation systems and services implementation specified in the SAM PBIP are collected through the SAM Implementation Groups (SAM/IG), held twice a year, which priorities address the follow-up on the implementation of the Performance-Based Navigation (PBN), Air Traffic Flow Management (ATFM), Communications, Navigation and Surveillance (CNS) improvements, automation and transition from Aeronautical Information Service (AIS) to Aeronautical Information Management (AIM). Additionally, AGA and MET areas progress are measured in other regional fora (COM/MET Meetings and AGA implementation).

4.2.5 Regarding the development of national plans aligned with the GANP (4th edition) and the SAM PBIP, in the SAM/IG meetings Argentina, Brazil, Chile and Colombia have informed their completion, and other States are in process of development.

4.2.6 The Meeting urged the CAR/SAM Region States that have not yet done so, to amend or develop as soon as possible their national plans aligned with the GANP (4th edition) and the RPBANIP and SAM PBIP, as a way of harmonizing the implementation and facilitate the inter and intraregional navigations systems and services interoperability. Therefore, the Meeting formulated the following draft conclusion:

**DRAFT****CONCLUSION 3/10****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) (4<sup>th</sup> edition) and the RPBANIP and SAM PBIP, complete them shortly in order to harmonize the implementation and facilitate the interoperability of systems and inter and intra-regional air navigation systems and services.

**Agenda Item 5: Items related with the Organization of GREPECAS**

Under this agenda item, the following working papers were discussed:

- Agenda Item 5.1:  
WP/18 - *Review of GREPECAS Terms of Reference and Work Programme* of the PPRC (Secretariat)
- Agenda Item 5.2:  
WP/19 - *Format of the PIRG Reports and Consolidation of the Annual Review of all PIRG Reports* (Secretariat)

**5.1 Review of GREPECAS Programmes and Projects Review Committee Terms of Reference and Work Programme**

5.1.1 The Meeting considered the application of the following actions for the improvement of the work programme of the Programmes and Projects Review Committee and the GREPECAS regarding:

- measurement of progress on the implementation goals for the air navigation improvements adopted by the GREPECAS
- GREPECAS RASG-PA Coordination

*Measurement of Progress on the Implementation Goals for the Air Navigation Improvements Adopted by the GREPECAS*

5.1.2 The Meeting took note of the implementation of the form as to follow-up on the indicators and targets progress for the CAR/SAM Regions, approved through GREPECAS Conclusion 17/7 – *Approval of the Forms to Follow-Up on the Progress on Indicators and Targets for the CAR/SAM Regions*.

*GREPECAS-RASG-PA Coordination*

5.1.3 In order to increase the necessary coordination between GREPECAS and RASG-PA, the Meeting considered important that the Chairperson and Vice-Chairperson of GREPECAS be invited to participate in the meetings of the RASG-PA and in the same way, the Chairperson and Vice-Chairperson of the RASG-PA be invited to participate in GREPECAS and PPRC meetings.

**5.2 GREPECAS Annual Report**

5.2.1 The Meeting was informed on the progress of ICAO work to simplify and standardize the format of the PIRG reports and consolidate the annual review of all PIRG reports. In this sense, the Meeting took note of the establishment of an Ad hoc Working Group (AHWG) of the Air Navigation Commission for the review of the PIRGs and RASGs, which objectives are the development of:

- Guidance Material for PIRG/RASG on the format and content of meeting reports
- Proposal for the ANC on how to best review the meeting reports

5.2.2 The Meeting noted that the results will be delivered by the group by November 2015, and in this sense, it considered that meanwhile the GREPECAS and PPRC report format will still be in use and the ANC will be informed as established in Decision 2/8 – *GREPECAS Annual Report* of the PPRC/2.

**Agenda Item 6:           Other business**

Under this Agenda Item the following information paper was discussed:

- IP/03 - *ICAO update* (Secretariat)

6.1                   The Meeting took note of the new ICAO documents and amendments and on the global scheduled events.