INTERNATIONAL CIVIL AVIATION ORGANIZATION
NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN OFFICE

TENTH MEETING OF DIRECTORS OF CIVIL AVIATION OF THE CENTRAL CARIBBEAN

C/CAR/DCA/10

FINAL REPORT

GRAND CAYMAN, CAYMAN ISLANDS, 18 TO 21 AUGUST 2009

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HISTORICAL

ii.1 Place and Date of the Meeting

The Tenth Meeting of Directors of Civil Aviation of the Central Caribbean (C/CAR/DCA/10) was held at the Ritz Carlton Hotel in Grand Cayman, Cayman Islands, from 18 to 21 August 2009.

ii.2 Opening Ceremony

Mrs. Loretta Martin, Regional Director of the North American, Central American and Caribbean Office of the International Civil Aviation Organization, provided introductory remarks and thanked the Civil Aviation Authority and the Government of the Cayman Islands for hosting the Meeting

The Honourable Juliana O'Connor-Connolly, Minister for District Affairs, Works and Gender Affairs, on behalf of the Honourable McKeeva Bush, Leader of Government Business/Premiere Designate, welcomed the participants to Cayman Islands, and His Excellency, Governor Stuart Jack, officially opened the Meeting.

ii.3 Organisation of the Meeting

Jamaica, supported by Haiti and the United States, nominated Mr. Richard Smith, Director General of Civil Aviation of the Cayman Islands, to chair the Meeting. He was duly elected and served as Chairman of the Meeting. Mrs. Loretta Martin, ICAO Regional Director, acted as Secretary with the assistance of Mr. Michiel Vreedenburgh, Deputy Regional Director ICAO NACC Regional Office, Mr. Hindupur Sudarshan, Air Traffic Management Section at ICAO Headquarters, and Mr. Raul Martinez, Regional Officer, Aeronautical Information Management, ICAO NACC Regional Office.

ii.4 Working Languages

The working languages of the Meeting were Spanish and English. The working papers and the report of the Meeting were available to participants in both languages. The information papers were available in the language received by the ICAO NACC Regional Office.

ii.5 Agenda

The Meeting adopted the following agenda:

Agenda Item 1: Review and Approval of the Draft Meeting Agenda and Schedule

Agenda Item 2: Review of Valid Conclusions from Previous C/CAR/DCA Meetings

Agenda Item 3: Review of Valid Relevant Conclusions from other Related Meetings

3.1 Third Meeting of North American, Central American and Caribbean Directors of Civil Aviation (NACC/DCA/3)
3.2 Fifteenth Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/15)
3.3 First Meeting of the Regional Aviation Safety Group – Pan America (RASG-PA/1)

Agenda Item 4: Aviation Safety Matters

4.1 GREPECAS Air Navigation Deficiencies Database (GANDD)
4.2 ICAO Universal Safety Oversight Audit Programme (USOAP)
4.3 State Safety Programme/Safety Management Systems (SSP/SMS)
4.4 Regional Aviation Safety Group – Pan American (RASG-PA)
4.5 Caribbean Aviation Safety and Security Oversight System (CASSOS)
4.6 Other Aviation Safety Matters

Agenda Item 5: Aviation Security (AVSEC) Matters

5.1 ICAO Universal Security Audit Programme (USAP)
5.2 AVSEC Training
5.3 ICAO NAM/CAR/SAM Aviation Security and Facilitation Regional Group (AVSEC/FAL/RG)
5.4 Other Aviation Security Matters

Agenda Item 6: Air Navigation Matters

6.1 Seventh Central Caribbean Working Group Meeting (C/CAR/WG/7) Report
6.2 Global and Regional Performance-Based Air Navigation Implementation Plans
6.3 Other Air Navigation Matters

Agenda Item 7: Regional and Technical Co-operation Matters

7.1 ICAO Cooperative Arrangement for the Prevention of Spread of Communicable Disease through Air Travel (CAPSCA) – Americas Project (RLA/08/901)
7.2 Other Co-operation Matters

Agenda Item 8: Environment Matters

8.1 Operational Considerations
8.2 Aircraft Noise and Local Air Quality Considerations
8.3 Aviation and Global Climate

Agenda Item 9: Air Transport Matters

9.1 Facilitation – Machine Readable Travel Documents (MRTDs), Public Key Directory (PKD)
9.2 ICAO Air Services Negotiation Conference (ICAN)
9.3 Conference on the Economics of Airports and Air Navigation Services (CEANS)
9.4 Statistics Activities

Agenda Item 10: Other Business

10.1 Planned ICAO Events 2009 – 2010
10.2 Priority NACC Regional Office Events and Activities for the next ICAO Triennium 2011 – 2013
10.3 Host and Dates for the Next Meeting

ii.6 **Schedule and Work Mode**

The Meeting agreed to hold its daily sessions from 09:00 to 14:30 hours, with two breaks. The Meeting also agreed to work in plenary.

ii.7 **Attendance**

The Meeting was attended by 9 C/CAR Region States/Territories and 2 International Organisations, totalling 33 delegates as indicated in the list of participants on pages iii-1 to iii-6.

ii.8 **Conclusions and Decisions**

The Directors of Civil Aviation of the Central Caribbean recorded its activities as Conclusions and Decisions as follows:

CONCLUSIONS: Activities requiring action/communication by States/Territories/International Organisations.

DECISIONS: Internal activities of the Meetings of Directors of Civil Aviation of the Central Caribbean.

LIST OF CONCLUSIONS ADOPTED BY THE C/CAR/DCA/10 MEETING

LIST OF DECISIONS ADOPTED BY THE C/CAR/DCA/10 MEETING

ii.9 List of Working and Information Papers

Working and Information Papers are available on the ICAO website at the following link: www.icao.int/nacc/meetings/2009/CCARDCA10/

Working Papers

WORKING PAPERS				
Number	**Agenda Item**	**Title**	**Date**	**Prepared and Presented by**
WP/01	1	Draft Agenda, Working Method and Schedule of the C/CAR/DCA/10 Meeting	31/07/09	Secretariat
WP/02	2	Status of Conclusions of Previous Meetings of the Central Caribbean Directors of Civil Aviation Outstanding after the Ninth Meeting	31/07/09	Secretariat
WP/03	3	Status Of Compliance of the Conclusions of the Meetings: NACC/DCA/3, GREPECAS/15 and RASG-PA/1	03/08/09	Secretariat
WP/04	4.1	Status Update on Air Navigation Deficiencies Reported for the C/CAR Region	30/07/09	Secretariat
WP/05	4.2	Progress Report on ICAO USOAP Activities in the C/CAR Region	29/07/09	Secretariat

WORKING PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
WP/06	4.3	ICAO SMS/SSP Evolution and Current Status	24/07/09	Secretariat
WP/07	4.4	Framework and Achievements of the Regional Aviation Safety Group – Pan America	30/07/09	Secretariat
WP/08	4.6	Flags of Convenience	23/07/09	Secretariat
WP/09	5.1	ICAO Universal Security Audit Programme (USAP)	13/07/09	Secretariat
WP/10	5.2	The ICAO AVSEC Training Programme	13/07/09	Secretariat
WP/11	5.3	Establishment and Future Activities of the ICAO NAM/CAR/SAM Aviation Security and Facilitation Regional Group (AVSEC/FAL/RG)	13/07/09	Secretariat
WP/12	6.1	Executive Summary of the Seventh C/CAR Working Group Meeting	03/08/09	Secretariat
WP/13	6.2	Air Navigation Performance Monitoring and Measurement	27/07/09	Secretariat
WP/14	6.2	Update of the Performance Based Air Navigation Implementation Plan for the NAM/CAR Regions	22/07/09	Secretariat
WP/15	7.1	ICAO Cooperative Arrangement for the Prevention of Spread of Communicable Disease Through Air Travel (CAPSCA) – Americas Project	31/07/09	Secretariat
WP/16	8.1	Operational Considerations	23/07/09	Secretariat
WP/17	8.2	Aircraft Noise and Local Air Quality Considerations	23/07/09	Secretariat
WP/18	8.3	Aviation and Climate Change	23/07/09	Secretariat
WP/19	9.2	ICAO Air Services Negotiation Conference (ICAN)	23/07/09	Secretariat
WP/20	10.2	States' Priorities for ICAO NACC Regional Office Work Programme Activities During the Next Triennium (2011 – 2013)	03/08/09	Secretariat
WP/21	10.3	Rotational Scheme for States/Territories Hosting the C/CAR/DCA Meetings	31/07/09	Secretariat
WP/22	6.2	Performance Based Air Navigation Implementation in the CAR Region Repositioning of the Proposed ICAO Technical Cooperation Project (RLA/09/801 previously RLA/08/000)	03/08/09	Secretariat
WP/23	7.2	ICAO Regional Technical Cooperation Project RLA/03/902 –Transition to GNSS in the CAR/SAM Regions – Augmentation Solution for the Caribbean, Central and South America (SACCSA)	04/08/09	Secretariat
WP/24	6.3	ATS Interfacility Data Communication	03/08/09	United States

Information Papers

INFORMATION PAPERS				
Number	**Agenda Item**	**Title**	**Date**	**Prepared and Presented by**
IP/01	--	General information	09/07/09 ***Revised***	Secretariat
IP/02	--	List of Working and Information Papers	07/08/09	Secretariat
IP/03	4.2	Continuous Monitoring Approach	23/07/09	Secretariat
IP/04	4.5	CASSOS Information Paper	27/07/09	CASSOS
IP/05	4.6	High-Level Safety Conference in 2010	24/07/09	Secretariat
IP/06	4.6	Eighth Accident Investigation and Prevention (AIG) Divisional Meeting	23/07/09	Secretariat
IP/07	4.2	ICAO International Financial Facility for Aviation Safety (IFFAS)	09/07/09	Secretariat
IP/08	6.3	New ICAO FPL Form	22/07/09	Secretariat
IP/09	9.1	ICAO Public Key Directory	09/07/09	Secretariat
IP/10	9.3	ICAO Conference on The Economics of Airports and Air Navigation Services (CEANS) Held in Montreal, 15-20 September 2008	23/07/09	Secretariat
IP/11	9.4	Scope of the ICAO Statistics Activities	23/07/09	Secretariat
IP/12	10.1	Tentative schedule – 2009/2010 ICAO NACC Regional Office Meetings, Seminars, Courses and Workshops	31/07/09	Secretariat
IP/13	7.1	ICAO Drives Pandemic Contingency Plans for Aviation Sector	31/07/09	Secretariat
IP/14	7.1	Influenza A(H1N1) – Encouraging a Harmonised Response	31/07/09	Secretariat
IP/15	6.3	Foreign Facility Deviations	31/07/09	United States
IP/16	4.6	Airfield Safety in the United States	31/07/09	United States
IP/17	4.6	Managing Wildlife Hazards to Aircraft	31/07/09	United States
IP/18	6.3	ATFM Implementation Developments Report of activities for the Air Traffic Flow Management (ATFM) implementation	31/07/09	United States

INFORMATION PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
IP/19	6.3	Initial Discussions of a Project to Implement 50 NM Lateral Separation in the Gulf of Mexico	31/07/09	United States
IP/20	8.3	Update on Activities of the Asia and South Pacific Initiative to Reduce Emissions (ASPIRE) and the Atlantic Interoperability Initiative to Reduce Emissions (AIRE)	31/07/09	United States
IP/21	8.3	Sustainable Aviation: A Comprehensive Approach to Mitigating Environmental Impacts	31/07/09	United States

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Agenda Item 1: Review and Approval of the Draft Meeting Agenda and Schedule

1.1 The Secretariat presented WP/01 inviting the Meeting to approve the draft meeting agenda and schedule. The Meeting approved the meeting agenda and the schedule as presented in the historical section of this Report.

Agenda Item 2: Review of Valid Conclusions from Previous C/CAR/DCA Meetings

2.1 The Secretariat presented WP/02, which reviewed the status of conclusions from previous meetings of the Central Caribbean Directors of Civil Aviation outstanding since the C/CAR/DCA/9 Meeting held in July 2007. The Meeting agreed that the following conclusions were completed or superseded by time, events or a subsequent NACC/DCA/3 Conclusion: 7/2, 7/12; 7/14, 8/4, 8/5, 8/6, 9/1, 9/2, 9/3, 9/4, 9/5, 9/6, 9/7. The Meeting therefore commenced with no outstanding valid conclusions from previous meetings.

Agenda Item 3: Review of Valid Relevant Conclusions from other Related Meetings

- *Third Meeting of North American, Central American and Caribbean Directors of Civil Aviation (NACC/DCA/3)*
- *Fifteenth Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/15)*
- *First Meeting of the Regional Aviation Safety Group – Pan American (RASG-PA/1)*

3.1 The Secretariat presented WP/03, which reviewed the status of the valid conclusions from the Third Meeting of North American, Central American and Caribbean Directors of Civil Aviation (NACC/DCA/3), the Fifteenth Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/15) and the First Regional Aviation Safety Group – Pan America Meeting (RASG-PA/1) related to air navigation and safety aviation issues, among other relevant regional and global civil aviation matters. The Meeting was informed that in the case of the NACC/DCA/3 and GREPECAS/15, these conclusions are the result of the adoption of draft conclusions prepared by the respective Working Groups and Subgroups and presented for the consideration by the C/CAR/DCA/10 Directors for follow-up.

3.2 Each conclusion was reviewed and the ICAO Secretariat made relevant comments, starting with the NACC/DCA/3 valid conclusions. This review included topics such as the implementation of the new ICAO Flight Plan Format and other equally relevant topics on ATM and CNS, improvement on MET services, transition from AIS to AIM, among others.

3.3 Likewise, the Secretariat presented the status of GREPECAS/15 Meeting conclusions. The conclusions contain important agreements in the air navigation fields in order to comply with SARPs and the global and regional air navigation plans.

3.4 Finally, the conclusions agreed by the RASG-PA/1 Meeting were reviewed. On this issue, considering that the RASG-PA is the focal point for the harmonisation and coordination of safety efforts to reduce aviation risks in the North American, Central American and Caribbean (NAM/CAR) and South American (SAM) Regions, the importance of supporting and promoting implementation of safety initiatives established by RASG-PA was noted.

3.5 The Meeting observed during the review of the conclusions, that many implementation deadlines have been established for 2009; therefore, there was a need to assess the progress of implementation actions and the difficulties faced due to limited time and resources of States/Territories and ICAO, taking into account the priorities of the different implementation processes in the Central Caribbean Region to comply with the agreements in the air navigation fields.

3.6 The Representative of Cuba recalled that Conclusion 15/2 from GREPECAS requested ICAO Headquarters consider an extension in the implementation date for areas 1 and 4, and 2 and 3 of e-TOD to 2010 and 2013, respectively. However, ICAO Headquarters, through State Letter Ref: AN 2/2.2-09/13, dated 23 April 2009, only modified the date stated in Annex 15, Chapter 10, regarding Areas 2 and 3 of the e-TOD to 15 November 2012.

3.7 Additionally, the Representative from Haiti emphasised the need to progress the transition from AIS to AIM in support of the ATM Operational Concept.

Agenda Item 4: Aviation Safety Matters

4.1 GREPECAS Air Navigation Deficiencies Database (GANDD)

4.1.1 The Secretariat presented WP/04, which provided an update on the status of air navigation deficiencies reported for the States and Territories in the Central Caribbean Region. The Meeting was reminded that the current version of the database of deficiencies is always available on the ICAO NACC Regional Office website at the following link: www.mexico.icao.int/gandd2.html.

4.1.2 The Meeting noted that C/CAR States/Territories had made efforts to correct deficiencies classified with priority "U" and that ICAO, in coordination with States in preparation for the GREPECAS/15 Meeting held in 2008, had undertaken a review of the priority classification methodology for deficiencies using the ICAO SMS Risk Assessment Matrix presented in **Appendix A** to this part of the Report. As a result, the Meeting noted that a large number of deficiencies had been reclassified from "U" to "A" and that "U" deficiencies were no longer reported for any C/CAR States/Territories. However, it was noted that 171 (89 percent) of the 192 unresolved deficiencies reported for C/CAR States/Territories are classified Priority "A," which are safety-related. The Meeting also reviewed the distribution of outstanding priority "A" deficiencies reported for the C/CAR Region, which showed the highest percentage of safety-related deficiencies in the AGA (59 percent), AIS (26 percent), and MET (12 percent) areas, highlighting the need to focus improvements in these particular areas.

4.1.3 The Meeting noted that the C/CAR States/Territories need to improve the resolution of air navigation deficiencies in several areas. In this regard, the following bodies are able to provide effective assistance to States/Territories:

- ICAO NACC Regional Office;
- ICAO Technical Cooperation programme;
- GREPECAS Aviation Safety Board; and
- Regional Aviation Safety Group – Pan America (RASG-PA).

4.1.4 This assistance can be provided in the following forms:

- experts to prepare deficiency resolution action plans;
- experts to advise and assist in the implementation of action plans;
- experts to develop procedures and guidance documents for services;
- projects to procure, install and commission new equipment and systems;
- projects to expand or develop new facilities and infrastructure; and
- projects to repair or upgrade existing equipment, systems, facilities and infrastructure.

4.1.5 C/CAR States/Territories were therefore encouraged to request assistance from ICAO, the GREPECAS Aviation Safety Board (ASB) and/or RASG-PA to assess the priority of deficiencies, prepare action plans and resolve their air navigation deficiencies.

4.1.6 The Secretariat noted that it was likely that more deficiencies currently identified in the database had been resolved but the resolution had not yet been reported to ICAO by the States/Territories' GANDD National Coordinator. Cuba and Dominican Republic mentioned that they had encountered difficulties sending updates on-line via the GANDD. ICAO will follow-up to ensure any problems are resolved. Both States also reported to have submitted updates to the ICAO NACC Regional Office directly but the updates were not yet reflected in the GANDD. The Secretariat provided clarification on the verification process for reports received from States. In addition, if the elimination of a deficiency is dependent on an amendment to the Air Navigation Plan, this involves an additional process that results in a delay in the updates being reflected in the GANDD.

4.1.7 States/Territories were invited to submit updates on the priority and status of deficiencies to the Secretariat during the Meeting. Cuba and Dominican Republic had submitted an update prior to the meeting, and Aruba and Netherlands Antilles submitted updates during the meeting. These updates will be reviewed by ICAO, in coordination with the States/Territories concerned and International Organisations where appropriate, and the applicable updates will be entered into the GANDD by ICAO.

4.1.8 As a result of the discussion under this Agenda Item, the Meeting decided to adopt the following conclusion:

CONCLUSION 10/1 RESOLUTION OF AIR NAVIGATION DEFICIENCIES

That C/CAR States/Territories:

a) immediately inform the ICAO NACC Regional Office of any changes in the GANDD National Coordinator;

b) reassess the priority of deficiencies using the ICAO safety management risk assessment methodology and inform the ICAO NACC Regional Office of any changes in the priority of deficiencies by the end of 2009;

c) prepare and update action plans for the resolution of each reported deficiency using the template provided in **Appendix B** to this part of the Report and submit these to the ICAO NACC Regional Office by the end of 2009;

d) resolve each reported deficiency based on the action plan as soon as practicable;

e) request assistance from ICAO, GREPECAS ASB and /or RASG-PA to prepare action plans and resolve deficiencies, if required; and

f) periodically update the GANDD with any new information on changes in priority and/or resolution for reported deficiencies.

4.2 ICAO Universal Safety Oversight Audit Programme (USOAP)

4.2.1 The Secretariat presented WP/05, which provided an overview of the progress and results of the ICAO Universal Safety Oversight Audit Programme (USOAP) safety oversight audits for the States in the Central Caribbean Region.

4.2.2 It was noted that Cuba and Jamaica had completed the audit process and were implementing their corrective action plans for which Cuba reported a 73 percent completion. Bahamas and Dominican Republic had been audited, and the ICAO final audit report and State corrective action plans were being prepared. Haiti had not been audited yet due to the United Nations security phase in effect preventing an ICAO mission. However, Haiti is tentatively scheduled to be audited by the end of 2010.

4.2.3 In relation to transparency and the voluntary and optional consent by States to post their safety oversight audit results on the ICAO Flight Safety Information Exchange (FSIX), it was noted that Bahamas had not yet provided its consent to ICAO, while Cuba, Dominican Republic and Jamaica had provided consent for the audit results chart to be posted but not the safety oversight audit reports. Dominican Republic informed the meeting of its intention to consent to publish the complete report.

4.2.4 The Meeting noted that the audit results for C/CAR States as a sub-regional group reflected a slightly higher percentage lack of effective implementation (46 percent) than the global average (42 percent) overall, and also in each individual critical element (CE), except for CE1 - primary aviation legislation and CE6 - licensing and certification obligations. However, the grouping did not reflect the wide range of individual audit results between the four audited States from very poor to very good results.

4.2.5 The critical elements in which C/CAR States as a group had the highest percentage of lack of effective implementation were the following:

- CE4 – Qualification and Training of Technical Staff – 70 percent;
- CE3 – Civil Aviation System and Safety Oversight Functions – 60 percent;
- CE8 – Resolution of Safety Concerns – 55 percent; and
- CE5 – Procedures and Technical Guidance – 54 percent.

4.2.6 The ICAO USOAP audit results demonstrated that the C/CAR States need to improve their safety oversight systems in several critical elements. The areas where most corrective actions are required are those where the following bodies are able to provide effective assistance to States:

- ICAO NACC Regional Office;
- ICAO Technical Cooperation programme;
- ICAO International Financial Facility For Aviation Safety (IFFAS);
- ICAO Implementation Support and Development (ISD) Programme;

- Regional Aviation Safety Group – Pan America (RASG-PA);
- Regional Safety Oversight Organisations (RSOO), e.g., the Caribbean Aviation Safety and Security Oversight System (CASSOS), the Regional Safety Oversight System (SRVSOP), and the Central American Agency for Aviation Safety (ACSA); and
- other States on a bilateral basis, e.g., Cuba reported to have provided pre-audit assistance to Nicaragua and Venezuela.

4.2.7 In response to the critical elements in which C/CAR States as a group had the highest percentage of lack of effective implementation, assistance could be provided in the following forms:

- experts to conduct educational events for staff training;
- experts to support safety oversight activities;
- experts to prepare corrective action plans; and
- experts to develop procedures and guidance documentation.

4.2.8 C/CAR States were therefore encouraged to request assistance, if required, from ICAO, RASG-PA, RSOOs and other States to improve their national safety oversight systems, resolution of audit findings, preparation and implementation of corrective action plans, the provision of training for staff, and development of documentation.

4.2.9 The Secretariat also presented IP/07 on the ICAO International Financial Facility for Aviation Safety (IFFAS) and highlighted that its objective is to finance safety related projects to correct deficiencies primarily identified through the Universal Safety Oversight Audit Programme (USOAP) when States cannot otherwise provide or obtain necessary financial resources. However, since its establishment no safety-related projects funded by IFFAS were located in the Americas regions. States were encouraged to seek details and the application form for assistance from IFFAS on its website at www.icao.int/iffas.

4.2.10 The Secretariat also made reference to the ICAO Implementation Support and Development (ISD) Programme, which focuses on facilitating assistance to States for resolving safety oversight and security deficiencies identified by the Universal Safety Oversight Audit Programme (USOAP) and the Universal Security Audit Programme (USAP). However, since its establishment the only project reported by ISD for the Americas regions was the ICAO/Canada Aviation Security Awareness Training Programme in the CAR/SAM Regions, discussed under Agenda Item 5.2. States were therefore encouraged to consider seeking assistance from ISD through the ICAO NACC Regional Office.

4.2.11 As a result of the discussion under this agenda item, the Meeting decided to adopt the following conclusion:

CONCLUSION 10/2 IMPROVEMENT OF SAFETY OVERSIGHT SYSTEMS

It is urged that:

a) Haiti, which has not been audited yet, update the compliance checklist prior to the audit scheduled in 2010;

b) Bahamas and Dominican Republic, which have been audited but the final report has not yet been published, update their compliance checklists before the final report is published;

c) Bahamas and Dominican Republic, who are developing their corrective action plans, address all the concerns raised in each audit finding indicating the short and long-term corrective actions proposed;

d) C/CAR States, if so required, consider seeking assistance from ICAO, RASG-PA, RSOOs and/or any other State, on a bilateral basis, to improve their safety oversight systems, including the resolution of audit findings, preparation and implementation of corrective action plans, the provision of training for staff, and development of procedures and guidance documentation;

e) the ICAO NACC Regional Office, once the USOAP Comprehensive Systems Approach (CSA) audit cycle has been completed, conduct an analysis of the results of audits conducted in the C/CAR States and submit a report to States indicating the probable reasons and possible solutions for the lack of implementation of the eight critical elements of a safety oversight system; and

f) Bahamas consider providing its consent to ICAO to post the safety oversight audit results on the Flight Safety Information Exchange (FSIX).

4.2.12 The Secretariat presented IP/03 on the ICAO Council's decision to approve the Continuous Monitoring Approach (CMA) for the continuation of the ICAO Universal Safety Oversight Audit Programme (USOAP) beyond 2010, to be presented to the ICAO Assembly for Resolution during its 37th Session to be held in 2010. The paper also described one of the intervention activities planned within the framework of the USOAP CMA referred to as ICAO Coordinated Validation Missions (ICVMs), to be launched in 2009, for implementation during the transition period between the CSA and CMA cycles to support Audit Results Review Board (ARRB) objectives. The Meeting was informed that the ICAO Secretariat will provide States with formal notification of the decision of the Council to adopt a CMA and provide all States with regular updates through Electronic Bulletins.

4.2.13 The Dominican Republic commented that in principle they support the implementation of the CMA, emphasising the benefit of using data collected through audits carried out under the CSA and to link this data with information available from several sources and use the database to generate analysis on factors that determine the true risk index. Likewise, they stressed that under CMA, States who have a high percentage in the lack of SARPs implementation would eventually be audited, and that in some cases it would be more appropriate to provide technical co-operation and/or operational assistance instead of conducting an audit, thus resulting in more efficient use of resources.

4.2.14 However, the Dominican Republic mentioned the following reservations:

- The compilation of relevant information alone will not be able to reflect the capacity of a State to provide safety oversight if the information obtained is not verified through proper observation, document examination or interviews. A State may have significant safety problems and not be audited due to the fact that the information provided in the online system is reflecting complete compliance.
- It is not clear how the open findings from CSA will be closed; therefore, some States may be willing to fund follow-up visits or new audits to close the findings.
- The global principle will be lost because States will no longer be assessed in the same manner.

4.2.15 The Dominican Republic recommended that:

- if CMA is adopted, that there be validation of the progress achieved by States in accordance with their Corrective Action Plan with the possibility of conducting follow-up visits to close any findings that may be open from the current audit cycle;
- proper data validation must be conducted; and
- the approved CMA make it mandatory to expand the reference framework of the Audit Results Review Board (ARRB) and make it even more urgent to allocate resources to the ICAO Regional Offices considering the tasks assigned and the expected results.

4.2.16 The Secretary committed to relaying the comments to the ICAO Secretariat at Headquarters, developing the methodology and tools required to implement a CMA, including the necessary detailed guidance to States and conducting the targeted ICAO Coordinated Validation Missions (ICVMs) during the transition phase. In addition, the Secretariat suggested that States submit comments to ICAO as they receive formal notifications of CMA developments, as well as during the ICAO High-Level Safety Conference and the ICAO 37th Assembly Session, both being held in 2010.

4.3 State Safety Programme/Safety Management Systems (SSP/SMS)

4.3.1 The Secretariat presented WP/06 on the evolution of safety concepts and subsequent implementation of Safety Management Systems (SMS) and State Safety Programmes (SSP) and the challenges for industry and regulators. The paper provided a perspective on the evolution, challenges and a few implementation issues associated with the migration process to the SMS/SSP environment.

4.3.2 The Meeting was informed that ICAO is enabling the strategic approach to safety management implementation projects around the world and that ICAO support to States with their SMS/SSP implementation plans can facilitate their efforts. ICAO has developed an ICAO State Safety Programme (SSP) Implementation Course and an ICAO Safety Data Management (ECCAIRS) Training Course. States were invited to consider requesting the ICAO NACC Regional Office to deliver a basic SSP implementation course for Civil Aviation Authority staff.

4.3.3 In this regard, the Meeting was informed that the ICAO NACC Regional Office had conducted an SSP training course in Spanish for CAR Region States/Territories in March 2009. An English SSP and ECCAIRS course was planned for the first week of December 2009 subject to a State/Territory offering to host. The details of the SSP/safety data management training courses and the conditions and requirements for hosting a course were provided in ICAO State Letter dated 13 November 2008 (Ref.: AN 12/52.1-08/70). States/Territories attending the Meeting were invited to consider hosting the planned English course in 2009.

4.3.4 States that have not already done so were urged to develop an SSP implementation plan and commence related activities at the earliest opportunity to comply with ICAO SARPs. Even though ICAO has a limited number of instructors available to provide technical cooperation upon a State's request, they are making all efforts to fulfill every request even if with some delay and at a nominal cost. States desiring to take advantage of this offer or to obtain more information may contact the ICAO NACC Regional Office or visit the website at: http://www.icao.int/anb/safetymanagement.

4.3.5 The United States commented on the distinction of responsibilities between the regulator and its SSP and the service provider and its SMS highlighting the importance to regulators for service providers to have robust and effective SMS and thereby reduce the burden on the regulator and its oversight activities and resources.

4.4 Regional Aviation Safety Group – Pan American (RASG-PA)

4.4.1 The Secretariat presented WP/07, which provided the background, objectives, structure and activities of the Regional Aviation Safety Group – Pan America (RASG-PA), established as the major forum for bringing together key stakeholders in addressing flight safety risks in the North American, Central American, Caribbean and South American Regions.

4.4.2 The First RASG-PA Meeting was held in November 2008 and was attended by States/Territories of the NAM/CAR/SAM Regions, International Organisations (ACI/LAC, ALTA, CASSOS, COCESNA, EASA, IATA, IFALPA, and IFATCA), airlines, airport operators and aircraft manufacturers.

4.4.3 The inaugural meeting approved the RASG-PA Terms of Reference and agreed on the organisational structure, which defined the membership, the Executive Steering Committee composition, and the criteria for election of chairpersons representing the sub-regions.

4.4.4 The inaugural meeting of the RASG-PA also established a new framework and mechanism for regional cooperation and collaboration between government aviation agencies and industry. The initiative, a first in civil aviation, was designed to fill the gap between air navigation and operational safety implementation activities involving States, international organisations, airlines, air navigation services providers, airports, manufacturers and regional aviation safety organisations throughout the Americas. The new safety group serves as a focal point to ensure harmonisation and coordination of safety efforts aimed at reducing aviation hazards and risks in NAM/CAR/SAM Regions.

4.4.5 The Group represents regionalisation of international civil aviation safety initiatives for States to pool their aviation expertise resources to achieve real safety improvements in a timely and sustainable manner through international cooperation. The basis for the Group's work is the ICAO Global Aviation Safety Plan (GASP) and the ISSG Global Aviation Safety Roadmap (GASR), which provide a strategy for all stakeholders to work together to improve civil aviation safety. Government and industry will work together to identify potential safety hazards and to mitigate risks to an acceptable level thereby achieving significant enhancements in civil aviation safety.

4.4.6 RASG-PA planning focuses on eliminating duplication of efforts and reducing human resource and financial expenditures, which are extremely limited in the CAR/SAM Regions. All participating stakeholders are looking for alternative funding sources from organisations that have a clear stake in reducing aviation safety risks in the area, thereby reducing the need to rely solely on States for funding.

4.4.7 At the regional level, GREPECAS is the body in charge of developing and promoting the implementation of the Regional Air Navigation Plan in accordance with the GANP. Likewise RASG-PA is the body in charge of developing and promoting the implementation of the GASP and GASR in the region.

4.4.8 RASG-PA is the first regional body for flight safety to be established, and ICAO is now considering the same mechanism for implementation in the other ICAO Regions.

4.4.9 The establishment of RASG-PA for regional cooperation and harmonisation for the implementation of safety initiatives and enhancements is fulfilling the objectives of GASP Global Safety Initiative (GSI) 5 and strategy of GASR Focus Area 5 to ensure consistent coordination of regional aviation safety programmes. The achievements and results of RASG-PA to date have included workshops on GSI/3, GSI/5, GSI/7 and GSI/12, projects on GSI/2, GSI/3 and GSI/12, and the commencement of safety information sharing, analysis and consolidation.

4.4.10 However, the success of RASG-PA is dependent on the commitment, participation and contributions of its members, with financial and in-kind support from States and industry alike. Results to date have been achieved through in-kind support from RASG-PA members as event hosts, provision of experts, input to projects, and sharing of proprietary safety information and tools. Financial support has been received from Boeing, which has permitted Project 1 (Renamed Project GS/3.A): Effective Flow of Hazard Information, related to GASP GSI/3 - *Effective Error and Incident Reporting* to become funded. In-kind support donors include Colombia, Costa Rica, Jamaica, United States (CAST), ACI/LAC, ALTA, Boeing, COCESNA (ACSA), IATA, IFALPA and Shell Aviation. In-kind support needs to continue and grow, and additional funding needs to be secured in order for the RASG-PA to continue meeting its objectives.

4.4.11 The RASG-PA/02 Meeting will be held in Bogotá, Colombia, 2-6 November 2009, and all C/CAR States/Territories were encouraged to attend with representatives from CAAs, airports and airlines.

4.4.12 The United States offered their full support to RASG-PA and highlighted the importance of collecting, sharing and analysing safety data. Jamaica, the first holder of the Chair of RASG-PA, expressed thanks to the United States for offering assistance and endorsing RASG-PA.

4.4.13 As a result of the discussion under this agenda item, the Meeting decided to adopt the following conclusion:

CONCLUSION 10/3 REGIONAL AVIATION SAFETY GROUP – PAN AMERICA (RASG-PA)

That C/CAR States and Territories:

a) support RASG-PA by assigning appropriate level representatives to attend meetings and participate in projects;

b) provide contributions including experts, training, hosting events, and sharing safety information, experience and tools; and

c) ensure the attendance of high-level safety managers from the CAAs, airport operators, ANSPs and airlines at the RASG-PA/02 Meeting and Workshop to be held in Bogota, Colombia, 2-6 November 2009.

4.5 Caribbean Aviation Safety and Security Oversight System (CASSOS)

4.5.1 Jamaica presented IP/04 on behalf of the Caribbean Aviation Safety and Security Oversight System (CASSOS), the Regional Safety Oversight Organisation (RSOO) established by CARICOM. The Meeting was informed of the transformation from RASOS to CASSOS under CARICOM to avail of the necessary political status and support, although membership in CARICOM is not a pre-requisite for membership in CASSOS. In addition, the original remit of RASOS to cover Annexes 1, 6 and 8 had been expanded in CASSOS to cover all ICAO Annexes. CASSOS is focused on sharing technical resources for safety oversight activities, in particular the qualification and training of personnel. Jamaica expressed gratitude to the United States FAA, TSA, Transport Canada and ICAO for supporting RASOS since its establishment and is looking forward to CASSOS receiving the same and continued support. The United States confirmed that it would support CASSOS and expressed thanks for being invited to participate in its development and activities.

4.6 Other Aviation Safety Matters

4.6.1 The Secretariat presented WP/08, which provided a progress report on measures being taken by ICAO to address the issue of flags of convenience and the development of an international register of Air Operator Certificates (AOC). C/CAR States/Territories were encouraged to use the new edition of ICAO Doc 8335 *Manual of Procedures for Operations Inspection, Certification and Continued Surveillance,* which will help States ensure implementation of a safety oversight programme for all commercial air operations, including those by foreign operators. C/CAR States/Territories were also urged to participate in the databases being developed by ICAO, e.g., the International Aircraft Information System and the International Register of AOCs when they become operational.

4.6.2 The United States expressed support for the ICAO initiatives and described the ongoing rulemaking for the new requirement for the re-registration of aircraft and other activities the United States is carrying out with the same objectives, mentioning a recent example of the collaboration with the Dominican Republic in relation to an illegal operator.

4.6.3 The Secretariat presented IP/06, which provided information on the 8th Accident Investigation and Prevention (AIG) Divisional Meeting held in Montreal in October 2008. The theme of the meeting was “Developing Investigations to Enhance Safety Worldwide.” The meeting addressed a number of important provisions in Annex 13 — *Aircraft Accident and Incident Investigation* with a view to further improving and amplifying the scope of investigations in a cost-effective environment. Further information concerning the AIG/08 Meeting, including reports of the outcomes and recommendations, is available on the meeting’s website www.icao.int/aigdiv08.

4.6.4 The Secretariat presented IP/05, which provided information regarding the ICAO High Level Safety Conference scheduled in Montreal from 29 to 31 March 2010; C/CAR States/Territories were encouraged to attend. The conference will bring together the appropriate level of senior management within States' civil aviation authorities to build consensus, obtain commitments and formulate decisions deemed necessary for the effective and efficient progress of key safety activities by ICAO and States. The conference's proposed draft global objectives and outcomes include the following:

- the ICAO safety framework;
- the evolution of the States audit programme;
- managing the transition to a State Safety Programme (SSP) environment;
- the link between SSP and Continuous Monitoring Approach (CMA);
- sharing of safety information;
- the protection of sources of safety information;
- the new Safety Management Annex; and
- harmonisation of rules and processes to avoid multiple certification.

4.6.5 The United States presented IP/16 on airfield safety in the United States informing the Meeting that the FAA places a high priority on improving airfield safety, and in partnership with industry, airport operators, and air traffic controllers has implemented many measures to reduce the risk of runway incursions. The Secretariat commented that several of the measures described in the paper are not presently contemplated in ICAO SARPs but that the ICAO Aerodromes Panel and its aerodrome design and visual aids working groups were reviewing proposals for amendments to Annex 14 - *Aerodromes*. A measure that has already been incorporated by ICAO is the enhanced taxiway centre line marking (Annex 14, Volume I, Amendment 10, applicable November 2009 refers). Issues currently being reviewed by ICAO include technological solutions to runway incursions (e.g., runway status lights - RWSL and Final Approach Runway Occupancy Signal - FAROS), runway end arresting systems (e.g., EMAS) and design issues such as runway end-around taxiways. Improvements in procedures and the introduction of new technology can improve runway safety.

4.6.6 The United States presented IP/17 on managing wildlife hazards to aircraft, informing the Meeting on the FAA requirements for education and training for wildlife biologists conducting wildlife hazard assessments and training for airport personnel involved in implementing wildlife hazard management plans at certificated airports. The FAA requires certificated airports that have a record of bird strikes to conduct a wildlife hazard assessment. Based on the results of the wildlife hazard assessment, the airport may need to develop a wildlife hazard management plan that documents what procedures the airport will implement to control wildlife at or near the airport. The Secretariat commented that the paper's conclusion for States/Territories to consider developing and implementing effective airport wildlife hazard mitigation plans supports the related ICAO SARPs and guidance on bird/wildlife strike hazard reduction (Annex 14, Volume I, Amendment 10, applicable November 2009 refers). The Secretariat also reminded the Meeting of the existence of the CAR/SAM Bird/Wildlife Hazard Prevention Committee (CARSAMPAF) that was established by the GREPECAS AGA/AOP/SG to address the deficiencies reported in the regions in relation to wildlife/bird hazard management at aerodromes. The next CARSAMPAF meeting is scheduled to be held in Grenada from 24 to 27 November 2009.

METHODOLOGY FOR DETERMINING THE THREE PRIORITY LEVELS FOR AIR NAVIGATION DEFICIENCIES (U/A/B) ON THE BASIS OF RISK INDEX

Risk probability	Risk severity				
	Catastrophic A	Hazardous B	Major C	Minor D	Negligible E
Frequent 5	5A	5B	5C	5D	5E
Occasional 4	4A	4B	4C	4D	4E
Remote 3	3A	3B	3C	3D	3E
Improbable 2	2A	2B	2C	2D	2E
Extremely improbable 1	1A	1B	1C	1D	1E

"U" type deficiencies correspond to the shadowed area of this matrix (Risk Indexes: 5A, 5B, 5C, 4A, 4B and 3A)

"A" type deficiencies correspond to all the remaining risk indexes

"B" type deficiencies are not safety related and do not correspond to any of the above risk indexes

APPENDIX B
ACTION PLAN FOR THE RESOLUTION OF EACH ONE OF THE REGIONAL AIR NAVIGATION DEFICIENCIES
PLAN DE ACCIÓN PARA RESOLVER CADA UNA DE LAS DEFICIENCIAS REGIONALES DE NAVEGACIÓN AÉREA

State/Intl. Organization:
Estado/Org. Internacional: Date/Fecha:

ID	Deficiency/ Deficiencia	Corrective Action/ Acción correctiva	Date of Correction/ Fecha de corrección	Executing Body/ Organo Ejecutor	Difficulties encountered/ Dificultades encontradas
Identify the deficiency using the format AREA-NUM-REG	**Exact description of the deficiency as appears in the Databank**	**State must inform the proposed corrective action or to be carried out, taking into account the action described by the Secretariat**	**Estimated date for the conclusion of the corrective action of the deficiency, indicating at least the year in which it will be completed**	**Responsible of carrying out the corrective action**	**Indicate any difficulty encountered or that could appear for the adequate implementation of the corrective action**
Identificación de la deficiencia usando el formato AREA-NUM-REG	**Descripción exacta de la deficiencia tal y como aparece en la Base de Datos**	**El Estado deberá informar la acción correctiva propuesta o que llevará a cabo, tomando en cuenta la acción ya descrita por la Secretaría**	**Fecha estimada para concluir la acción correctiva de la deficiencia, indicando al menos el año en que se finalizará**	**Responsable de llevar a cabo la acción correctiva**	**Mencionar cualquier dificultad encontrada o que se pueda presentar para la adecuada implementación de la acción correctiva.**

Agenda Item 5: Aviation Security (AVSEC) Matters

5.1 ICAO Universal Security Audit Programme (USAP)

5.1.1 The Secretariat presented WP/09, which provided an overview of the progress and results of the ICAO Universal Security Audit Programme (USAP) security audits for all the States in the North American and Caribbean Regions, except for Haiti. In this regard, the Meeting noted that it would be beneficial for analysing regional trends and related actions if the audit results were available for the Central Caribbean sub-region, as is the case with USOAP safety audit results.

5.1.2 It was noted that the results of USAP follow-up visits in most States of the NAM/CAR Regions demonstrated some important improvements with regards to Annex 17 SARPs implementation. However, overall compliance with Annex 17 Standards averaged 29 percent in the NAM/CAR regions, below the global average of 34 percent, highlighting several areas of concern. States were urged to resolve these issues for effective implementation of security requirements and to meet the implementation dates in their corrective action plans. In this regard, the following primary aviation security areas of concern were noted:

National level

- National Civil Aviation Security Programme (NCASP)
- National Civil Aviation Security Committee (NCASC)

Airport level

- Access control
- Passenger and cabin baggage security
- Cargo and catering security
- Response to acts of unlawful interference

5.1.3 As a result of the discussion under this agenda item, the Meeting decided to adopt the following conclusion:

CONCLUSION 10/4 ICAO UNIVERSAL SECURITY AUDIT PROGRAMME (USAP)

That Central Caribbean States:

a) ensure the support for the AVSEC organisation within their administration for the establishment, approval and effective implementation of their AVSEC National Civil Aviation Security Programme (NCASP) and the activation of their National Civil Aviation Security Committee (NCASC);

b) ensure complete and effective implementation of their corrective action plan regarding the recommendations of the USAP first cycle audit report before receiving the USAP second cycle audit, notifying the progress on their action plans to ICAO; and

c) notify ICAO should any differences identified during the USAP audit remain unaddressed.

5.2 AVSEC Training

5.2.1 The Secretariat presented WP/10 on the ICAO aviation security (AVSEC) training activities provided under the ICAO Aviation Security Regular Training Programme and the ICAO/Canada Aviation Security Awareness Training Programme in the CAR/SAM Regions – Phase II. The Meeting was informed of the establishment of a new English language ICAO Regional Aviation Security Training Centre (ASTC) in the United States to complement others in the CAR/SAM regions located in Port of Spain, Quito and Buenos Aires. The Meeting was also informed of the completion of Phase II of the ICAO/Canada Aviation Security Awareness Training Programme in the CAR/SAM Regions earlier in 2009 and the proposal to extend the programme to Phase III, which could comprise more training or alternatively direct implementation assistance to States. States/Territories were reminded that the ICAO AVSEC training activities are dependent on the continued loan of Short-Term Experts (STE) by States to ICAO as instructors under the AVSEC Plan of Action.

5.2.2 States/Territories were reminded to inform the ICAO NACC Regional Office of any changes in the AVSEC and FAL points-of-contact (PoC) and to provide ICAO with reports on acts of unlawful interference in their States in a timely manner.

5.2.3 The Meeting was informed regarding the Fifth Symposium and Exhibition on ICAO Machine Readable Travel Documents (MRTD), Biometric and Security Standards to be held at ICAO Headquarters from 21 to 23 September 2009, and States/Territories were encouraged to attend.

5.2.4 States/Territories were reminded of the importance of the Annex 17 Standard, which establishes that civil aviation authorities should ensure that the personnel carrying out security audits, tests, surveys and inspections are trained to appropriate standards for these tasks in accordance with the national civil aviation security programme. States/Territories were therefore encouraged to take advantage of the ICAO AVSEC training activities and ensure participation of their AVSEC representatives in these training events to improve their level of aviation security in the States.

5.2.5 As a result of the discussion under this agenda item, the Meeting decided to adopt the following conclusion:

CONCLUSION 10/5 ICAO AVSEC TRAINING PROGRAMMES

That Central Caribbean States/Territories:

a) keep the ICAO NACC Regional Office informed of their points-of-contact for Facilitation (FAL) and Aviation Security (AVSEC);

b) ensure that AVSEC personnel from their administrations participate in the ICAO training activities; and

c) support the ICAO AVSEC Plan of Action by providing qualified personnel as instructors and/or hosting ICAO AVSEC training activities.

5.3 ICAO NAM/CAR/SAM Aviation Security and Facilitation Regional Group (AVSEC/FAL/RG)

5.3.1 The Secretariat presented WP/11 on the creation of the ICAO NAM/CAR/SAM Aviation Security and Facilitation Regional Group (AVSEC/FAL/RG) that replaced the former GREPECAS Aviation Security Committee (AVSEC/COMM).

5.3.2 The Meeting was informed that the ICAO Council had amended the GREPECAS terms of reference to exclude aviation security issues as the Air Navigation Commission (ANC) is not the appropriate body to manage those issues. Due to the importance of continuing the regional security activities previously assigned to the GREPECAS AVSEC/COMM, the Meeting was informed of the creation of the new ICAO NAM/CAR/SAM Aviation Security and Facilitation Regional Group (AVSEC/FAL/RG) to replace the former GREPECAS AVSEC/COMM. The AVSEC/FAL/RG will function as an independent and multi-regional forum to harmonise and efficiently unify the efforts of smaller AVSEC regional groups in order to avoid duplication of efforts and exhausting limited State and ICAO resources. The membership and terms of reference for the new AVSEC/FAL/RG will start with the same as those of the previous AVSEC/COMM. In addition, the Chairman of the former AVSEC/COMM will continue as Chairman through the first meeting of the AVSEC/FAL/RG, and ICAO will continue as Secretariat of this group through the AVSEC Regional Officer.

5.3.3 The Meeting was informed that the first meeting of the AVSEC/FAL/RG is planned to be held in early 2010 subject to confirmation of a host. In this regard, C/CAR States were invited to consider offering to host this event. States/Territories were also encouraged to participate in the future activities of the AVSEC/FAL/RG by allowing the AVSEC and FAL personnel from their civil aviation and aviation security and facilitation authorities to attend the meetings.

5.3.4 As a result of the discussion under this agenda item, the Meeting decided to adopt the following conclusion:

CONCLUSION 10/6 ICAO NAM/CAR/SAM AVIATION SECURITY AND FACILITATION REGIONAL GROUP (AVSEC/FAL/RG)

That Central Caribbean States/Territories:

a) support the AVSEC/FAL/RG by ensuring the participation of their aviation security and facilitation experts at meetings and other activities in order to maintain continuous improvement and sustainability of AVSEC measures and procedures for the protection of international civil aviation;

b) support the AVSEC/FAL/RG by hosting future meetings and other related events; and

c) ensure attendance of high level security and facilitation personnel at the first AVSEC/FAL/RG meeting scheduled for early 2010.

5.4 Other Aviation Security Matters

5.4.1 United States informed the Meeting that to address aviation and transportation security from a global perspective, the Transportation Security Administration (TSA) created the Office of Global Strategies (OGS) in 2007. OGS provides expertise and support required to enhance TSA's mission internationally by developing, coordinating, and communicating organisational policies, procedures and guidelines for TSA's global partners. Most recently, OGS launched an international Aviation Security Sustainable International Standards Team (ASSIST), consisting of group of veteran security experts, to collaborate with States for the development and enhancement of aviation security initiatives, including plans to conduct assessments, develop aviation security programs, and share best practices.

5.4.2 ASSIST teams have the primary focus to support security officials in building aviation security programs. These teams work to raise the baseline of transportation security worldwide and effectively build sustainable institutions and practices through international alliances, building capacity through aviation security training and overall security assessments. TSA has launched the ASSIST program in two States to date, namely St. Lucia and Liberia, and plans to expand the program in the future. In addition to the ASSIST program, TSA continuously provides training and train-the-trainer opportunities to States.

5.4.3 At the request of the Chairman, United States provided the following contact details for TSA representatives assigned to States in the Caribbean region who may be contacted for further information on ASSIST:

Victor Guardia
Tel.: + 1 954 874-7123
Cel.: + 1 954 205-9347
Email: Victor.Guardia@dhs.gov

Allan Hurr
Tel.: + 1 954 874-7122
Cel.: + 1 954 292-2125
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Loretta McNeir
Tel.: + 1 954 874-7124
Cel.: + 1 305 905-5602
Email: Loretta.McNeir@dhs.gov

Agenda Item 6: Air Navigation Matters

6.1 Seventh Central Caribbean Working Group Meeting (C/CAR/WG/7) Report

6.1.1 The Chairman of the C/CAR/WG presented WP/12, which provided an executive summary and the Draft Conclusions of the Seventh Central Caribbean Working Group Meeting (C/CAR/WG/7) held in Mexico City, Mexico, from 13 to 16 July 2009.

6.1.2 Regarding safety management, the Meeting was briefed on the actions (GREPECAS Conclusion 15/36) taken to reduce the occurrence of LHD events caused by errors in coordination messages between ATC units. Also, the Meeting noted that States and international organisations had already initiated follow-up actions accordingly.

6.1.3 The Chairman of the working group informed the Meeting on the need to achieve a performance based global air traffic management (ATM) system, which will be accomplished through the implementation of air navigation systems and procedures in a progressive, cost-effective and cooperative manner. The Meeting recognised that the Global Air Navigation Plan is a strategic document whereas the regional and national plans are considered as the action plans. It is essential that all of these work plans be based on performance objectives and associated projects and that they be reflected in Performance Framework Forms.

6.1.4 The Meeting stressed the need to follow-up on Decision 3/3 of the NACC/DCA/3 Meeting as well as to update the NAM/CAR Performance Based Air Navigation Plan so as to achieve a seamless global ATM system.

6.1.5 Referring to GREPECAS Conclusion 15/35 – *Implementation of the new ICAO Flight Plan Model*, the Meeting called upon States, Territories and international organisations to initiate actions to implement the new flight plan format and associated ATS messages to ensure a smooth transition at regional and national levels.

6.1.6 Regarding PBN, the Meeting considered that States should develop their action plan based on the CAR/SAM PBN Roadmap and take measures to optimise the ATS routes network in the different FIRs.

6.1.7 During the Meeting, the States/Territories/international organisations were requested to complete the ATFM Questionnaire included as Appendix C to Agenda Item 2 of the C/CAR/WG/7 Meeting Final Report and send it to the ICAO NACC Regional Office by **31 October 2009**. In addition, Appendix D to the C/CAR/WG/7 Report contains an ATFM Manual, which may be used by States, Territories and international organisations to develop ATFM operational procedures.

6.1.8 Regarding CNS matters, the progress of the MEVA II / REDDIG networks interconnection action plan was reviewed. The interconnection, which is expected to be available by September 2009, will allow AMHS systems communication requirements and radar data sharing. It was informed that the MEVA II and REDDIG Networks Administrations will develop a draft action plan to complete the study for the integration of both networks.

6.1.9 The Meeting was informed on ICAO efforts to implement an electronic Air Navigation Plan (eANP). It includes a frequency planning application that will allow the coordination and management of frequency assignments between States and ICAO in a dynamic manner. The Secretariat has provided prototype version 2.11 of the frequency planning tool to Dominican Republic, Jamaica and COCESNA for comments and observations.

6.1.10 Regarding the Air Surveillance Regional System (SRVA) as an initiative for the implementation of a civil-military regional coordination centre, the Meeting noted that it will support civil aviation operations in the Central America FIR, Panama FIR and Santo Domingo FIR with users from civil aviation, military representatives and/or security agencies. The Meeting was informed that the SRVA is trying to align its tasks with ICAO requirements to support search and rescue (SAR) missions, humanitarian assistance and support for natural disasters, security and surveillance among others. Likewise, the SRVA is trying to build a compatible technical platform with a common interface for radar data sharing with adjacent FIR radar systems.

6.1.11 In this regard, the delegate from the Dominican Republic requested the Secretariat to provide further details on this system and the data sharing, and how to accomplish them taking into account that efforts should not be duplicated neither by ICAO nor by the States. The Secretariat agreed that States must work closely with involved parties in order to form a surveillance center, depending on their own civil-military coordination needs. In this regard, the Meeting also agreed that the NACC Office should continue providing assistance on this matter in accordance with ICAO guidelines.

6.1.12 Concerning aeronautical meteorology, the Meeting was aware that the Global Air Navigation Plan demands immediate access to high-quality OPMET data (METAR, TAF, SIGMET, etc.) which assist air traffic services in tactical decision-making for aircraft surveillance, air traffic flow management and flexible and dynamic routing that will contribute to the optimisation of airspace use. The Meeting also took note that the ICAO NACC Regional Office has provided assistance to States so that meteorological reports (METAR) and aerodrome forecasts (TAF) from all NAM and CAR States and Territories are available at OPMET data banks and also noted the need for improvements in the preparation and dissemination of SIGMET messages on hazardous meteorological conditions and volcanic ash clouds.

6.1.13 The Secretariat requested C/CAR States to report to the ICAO NACC Regional Office on the updated implementation status of AIS/MAP (AIM) issues, as well as to report difficulties such as processing and digital production of the integrated documentation package (IAIP), AIP, AMDs, SUP to AIP, AIC, PIB, NOTAM (checklists), aeronautical cartography, planning and creation of Geographic Information System (GIS), Quality Management Systems (QMS) programmes, and surveying and publication of obstacles data in the WGS84 system and Electronic Terrain and Obstacle Data (e-TOD).

6.1.14 Regarding Human Resources and Training, it was emphasised that there should be an organisational analysis in order to determine a training programme that ensures personnel are trained to competently perform their duties.

6.1.15 The Meeting took note of the information presented in the C/CAR/WG/7 Report, and Cuba stated that there were many pending target dates to be complied with such as PBN, SMS, SSP, eTOD and WGS 84, citing the lack of guidance material in Spanish as one of the problems contributing to non-compliance. The Secretariat explained the difficulties faced by ICAO to translate documentation and stated that during the establishment of new standards, States are consulted on a continuous basis either in the ICAO Council, the Air Navigation Commission, the Panels and its contributory design and work groups, or the State Letters circulating proposed amendments to SARPs for State comments before the publication of the new standards in the Annexes. States were encouraged to participate more actively in the process by providing formal comments on the proposed new SARPs and their dates of applicability. It was mentioned that the ICAO NACC Regional Office has prepared a survey to get a clearer picture of States needs and interests and to prioritise its work, which should consider areas where States need assistance to implement the new requirements. Furthermore, the Secretariat will bring the urgency for the translation of documentation into Spanish to the attention of ICAO Headquarters.

6.1.16 The Meeting reviewed and approved the Conclusions (**Appendix A**), and the Work Programme, Terms of Reference and Membership of the Central Caribbean Working Group (**Appendix B**). Cuba, Dominican Republic and the United States expressed their satisfaction with the valuable work being undertaken by the C/CAR/WG.

6.1.17 The Secretariat informed the Meeting about the importance of confirming the focal points designated by the States/Territories/international organisations for the C/CAR/WG. To this end, C/CAR States/Territories/international organisations were encouraged to send the updated names and e-mail addresses of the members of the working group to the ICAO NACC Regional Office.

6.1.18 Finally, regarding the rotational meeting programme, the Meeting was informed that the United States kindly offered to host the next C/CAR/WG/8 Meeting in Miami, Florida, from 17 to 20 May 2010.

6.2 Global and Regional Performance Based Air Navigation Implementation Plans

Air Navigation Performance Monitoring and Measurement

6.2.1 The Secretariat presented the video *View of the Future – Seamless Programme from Global Concepts to Regional Realties* and WP/13, which proposed an initial set of key performance areas and associated metrics to be used as the basis for performance measurement of the regional air navigation work programme.

6.2.2 The Meeting recalled that the GREPECAS/15 Meeting held in Rio de Janeiro, Brazil, from 13 to 17 October 2008, while adopting a regional performance framework (Conclusion 15/1 refers), invited States to implement a national performance framework on the basis of ICAO guidance material and aligned with the regional performance objectives, the regional air navigation plan and the Global ATM Operational Concept. The performance framework should include identification of national performance objectives, taking into consideration user expectations and completion of national performance framework forms for all air navigation areas.

6.2.3 Furthermore, the Meeting recognised that data collection, processing, storage and reporting are fundamental to the performance based approach and form part of performance monitoring and management. It is essential to use harmonised terminology in applying a performance based approach to planning and implementation of air navigation systems. For performance measurement, three basic terms were noted: a) performance indicator; b) performance target; and c) metrics.

6.2.4 Performance measurement is done through the collection of data for the supporting metrics. Supporting metrics fulfil three functions, namely forming a basis for assessing and monitoring the provision of ATM services, defining what ATM services users value and providing common criteria for cost benefit analysis for air navigation systems development. These metrics are used to calculate the values of performance indicators. In other words, metrics are quantitative measures of system performance – how well the system is functioning. The performance monitoring and measurement of ATM systems calls for metrics for access, capacity, cost effectiveness, efficiency, environment, flexibility, predictability and safety. On the basis of the Global ATM Operational Concept and the Manual on Performance of the Global Air Navigation System, the Meeting was provided with a sample set of metrics.

6.2.5 Considering the need to have a clearly defined common approach to performance monitoring and measurement, the Meeting adopted the following conclusion:

CONCLUSION 10/7 AIR NAVIGATION PERFORMANCE MONITORING AND MEASUREMENT

That the C/CAR States/Territories:

a) assign the C/CAR/WG to establish a set of metrics related to key performance areas including access, capacity, cost effectiveness, efficiency, environment, flexibility, predictability and safety by the eighth meeting to be held in 2010;

b) incorporate agreed metrics into the performance monitoring process by the end of 2010, collect and submit relevant data to the ICAO NACC Regional Office on a regular basis; and

c) coordinate with the ATM community members to promote information and data collection.

Update of the Performance Based Air Navigation Implementation Plan for the NAM/CAR Regions

6.2.6 The Secretariat presented WP/14 on the update of the NAM/CAR Performance Based Air Navigation Implementation Plan, presented as **Appendix C** to this part of the Report, to ensure coordination among all air navigation services toward a seamless ATM system in line with Doc 9750 operational initiatives and in accordance with GREPECAS *Conclusion 15/1: "Development of Performance Based Regional and National Plans"* and *Decision NACC/DCA/3/3: "Approval of the NAM/CAR Implementation Plan."*

6.2.7 The Meeting considered the alignment of the C/CAR/WG work programme with this regional implementation plan, considering the performance objectives and related action plans with detailed tasks, deadlines and ICAO periodic monitoring activities. It was also indicated that these performance-based work strategies will impact the dynamic update of the implementation programmes and terms of reference of the C/CAR/WG.

6.2.8 Haiti commented on the importance of implementation of air navigation systems with a performance-based approach in order to accommodate the increases of air traffic in the C/CAR Region.

PBN Implementation

6.2.9 In relation to Assembly Resolution 36-23 on the implementation of RNAV/RNP procedures, which resolved that States and GREPECAS complete a PBN implementation plan by 2009, which will include achieving implementation of approach procedures with vertical guidance (APV) (Baro-VNAV and/or augmented GNSS) for all instrument runway ends either as the primary approach or as a back-up for precision approaches by 2016 with intermediate milestones as follows: 30 percent by 2010 and 70 percent by 2014, and the related request of the Secretariat to inform on PBN implementation progress, the Meeting agreed to formulate the following conclusion:

CONCLUSION 10/8 PBN IMPLEMENTATION IN THE NATIONAL AIR NAVIGATION SYSTEMS

That Central Caribbean States/Territories report on their national PBN Plan and implementation progress achieved with their national air navigation systems to the ICAO NACC Regional Office by **30 January 2010**.

Repositioning of the proposed ICAO Technical Co-operation Project (RLA/09/801 previously RLA/08/000)

6.2.10 The Meeting recalled that the Third Meeting of North American, Central American and Caribbean Directors of Civil Aviation (NACC/DCA/3) held in September 2008 in the Dominican Republic reviewed a proposal for a Regional ICAO Technical Co-operation (TC) project aimed at establishing a mechanism for assisting States/Territories with the implementation of harmonised air navigation systems leading to a seamless Global ATM system. Subsequently, the Meeting agreed that a CAR regional project be developed that included the requirements and priorities for each CAR region State.

6.2.11 However, as a result of recent developments and adoption of performance-based planning by GREPECAS/15, WP 22 was presented outlining the repositioning of the proposed TC project based on four basic principles: focus on operational improvements; build on current infrastructure; use existing airframe capabilities; and enhance only what is needed using a menu of prioritised projects. The repositioned project proposes five strategic operational improvements (SOIs) consisting of a) enhance airspace capacity and efficiency of enroute airspace; b) enhance airspace capacity and efficiency of terminal airspace; c) enhance aerodrome operations; d) improve flexibility of operations in enroute and TMA airspace; and e) enhance aviation safety.

6.2.12 In terms of implementation, the States (or group of States on the basis of homogenous ATM areas), depending on current and future scenarios, will decide which of the five SOIs are applicable to its situation. An example of the Performance Framework Form (PFF) for SOI *"enhance airspace capacity and efficiency of enroute airspace"* was illustrated. The Meeting noted that formulation of the airspace concept and determining requirements (an initial step in implementation) calls for a multi-disciplinary team and includes factors such as airspace organisation and management, assessing existing fleet capability and available CNS infrastructure, listing airworthiness and operational approvals, etc.

6.2.13 The estimated timeframe for ICAO's and States' planning and implementation process for this repositioned TC project was discussed and is reflected in **Appendix D** to this part of the Report. It is expected that States will receive the detailed project proposal for air navigation systems by 28 February 2010, with planned completion of the entire project by June 2013. The proposal included that project resources be composed of a Project Coordinator supported by the ICAO NACC Regional Officers, short term experts and experts on loan from the States, the latter being the same persons that contribute to the sub-regional air navigation working groups and GREPECAS sub-groups and task forces.

6.2.14 The Meeting noted that the tools for a performance-based approach consists of a safety case and business case. While the safety case addresses any operational changes, the investment decision in air navigation infrastructure must be justified by a business case analysis. Concluding the discussions, the Meeting supported this new performance based approach (PBA) for the TC project that harmonises the planning and implementation of air navigation systems in the CAR Region leading to a seamless Global ATM system. In particular, Jamaica expressed its interest in joining this TC project. Consequently, the Meeting agreed to the following conclusion:

CONCLUSION 10/9 PERFORMANCE BASED ICAO TECHNICAL CO-OPERATION PROJECT (RLA/09/801) FOR THE CAR REGION

That:

a) ICAO send the repositioned TC project proposal along with timelines to States/Territories of the CAR Region by 30 October 2009, for review and comment;

b) ICAO finalise the detailed performance-based air navigation project document and disseminate to all CAR States/Territories by 28 February 2010, seeking their participation; and

c) States/Territories of the CAR region participate in this performance-based regional ICAO TC project.

6.3 Other Air Navigation matters

6.3.1 The Secretariat presented IP/08, which informed the Meeting about State Letter Ref. AN13/2.1-08/50, regarding significant changes to the ICAO Flight Plan through Amendment 1 to the PANS-ATM, Doc 4444. The new flight plan will be implemented by 15 November 2012.

6.3.2 The Meeting was informed that ICAO will publish a website that will contain the implementation status of new provisions in all Flight Information Regions (FIRs) and will publish issues related to implementation and be available for discussions among subject matter experts and State designated points-of-contact. One of the main concerns of airspace users is the possible post-implementation challenge that will be faced by States and service providers who are not be able to implement by the deadline.

6.3.3 United States presented WP/24, and the Meeting recalled that GREPECAS encouraged States and international organisations to implement the ATS Interfacility Data Communications (AIDC). Considering the need for a harmonised approach to the implementation of AIDC, the Meeting called on ICAO to develop a global Interface Control Document (ICD). The Secretariat commented that other ICAO Regions were also calling for a global document. Cuba expressed appreciation for the presentation of the WP and its support for implementation of AIDC as a means to improve safety and mentioned the bilateral coordination that was required with the United States. The United States proposed a meeting to progress the coordination and the Secretariat offered the ICAO NACC Regional Office as a venue for these bilateral discussions.

6.3.4 The United States presented IP/15 providing information on safety concerns related to erroneous air traffic control (ATC) coordination when flights cross into an adjacent Area Control Centre (ACC) boundary and the importance of filing altitude deviation reports with the Caribbean and south American Monitoring Agency (CARSAMMA). The Meeting took note that the CARSAMMA carries out its activities through five means, including monitoring height-keeping performance and the occurrence of large altitude deviations, and issuing the appropriate reports. When a trend in shared reports is identified, States, Territories and international organisations can share the information and meet bilaterally to develop a solution to the identified LHD cause. As a result, the Meeting was requested to encourage CAR/SAM units in charge of sending reports to continue compliance with the LHD requirements to report to CARSAMMA on a monthly basis and support regional and global activities that will promote accurate and timely reporting of LHDs within the CAR/SAM Regions

6.3.5 The Secretariat commented that a key element of analysis of how various categories of LHDs contribute to the calculated vertical operational risk is the reporting of LHDs, and the goal of the analysis is to review each incident in detail, identify casual factors of the incidents and establish short and long-term mitigations. The analysis also provides the opportunity to establish a safety culture and relationship in which ATS safety-related data is shared to help identify potential issues so that preventative measures can be taken before ATS incidents occur.

6.3.6 CARSAMMA has been established at the *Centro de Gerenciamento da Navegação Aérea – CGNA* (Air Navigation Management Centre) in Brazil to support implementation and continued safe use of RVSM in CAR/SAM airspace and to support implementation and continued safe use of Required Navigation Performance (RNP) in specific portions of CAR/SAM airspace.

6.3.7 The Meeting took into account that GREPECAS considered that ATFM implementation in the CAR/SAM Regions would require development of detailed guidelines for States and international organisations, including the following aspects:

- review experience in other regions;
- obtain and complete the information, taking note of the status in the participating States and organisations; and
- obtain and complete the information, taking note of the status in the participating States and organisations regarding the electronic databases required for the evolutionary phases of the ATFM system.

6.3.8 Additionally, the Meeting briefly commented on IP/18 presented by the United States on ATFM issues, information also discussed at the C/CAR/WG/7 Meeting, which included a questionnaire and ATFM Manual with updates made during the ATFM/TF/4 Meeting held in Colombia in June 2009. Regarding the LHD issue, it was considered that this topic had been discussed and that both C/CAR/WG Conclusion 6/2 and GREPECAS Conclusion 15/36 remained valid. The Secretariat indicated that it would be convenient to support an Internal ATS Safety Auditors training event next year. Another aspect that could be supported is ATM Automation Interface; NACC/DCA Conclusion 3/7 covers the necessary actions to accomplish automated system interface in the short-term.

6.3.9 The United States presented IP/19 informing the Meeting that the FAA and Mexico/SENEAM have held initial discussions regarding a project to implement 50 NM lateral separation and a new area navigation (RNAV) route system in the Gulf of Mexico. The project includes the following:

- reduce lateral separation in the Gulf of Mexico from 100 NM to 50 NM between aircraft authorised Required Navigation Performance 10 (RNP 10) or RNP 4;
- implement a redesigned RNAV route structure based on a minimum 50 NM track spacing;
- harmonise the proposed RNAV route structure with adjacent ATS providers;
- have 90 percent or more of Gulf of Mexico flights conducted by operators/aircraft authorised RNP 10 or RNP 4; and
- accommodate the operation of a small percentage of operators/aircraft not authorised RNP 10 or RNP 4.

6.3.10 The Meeting recognised that the current Concept of Operations directly affects only the U.S. and Mexico Flight Information Regions (FIRs). However, this project could be expanded in a phased approach if there are additional improvements to be gained by including additional FIRs.

APPENDIX A

CONCLUSIONS OF THE C/CAR/WG/7 MEETING

CONCLUSION C/CAR/WG/7/1 REVIEW OF THE CAR REGION AIRSPACE WITH A PERFORMANCE-BASED APPROACH

That, taking into account the results of RNP implementation in the Gulf of Mexico airspace,

a) the States/Territories of the C/CAR develop their respective work programmes with a performance-based approach for the review of the airspace for the CAR Region, and provide ICAO a report on the progress achieved during the second half of 2010; and

b) ICAO provide the required assistance for developing a new seamless airspace in the CAR Region and follow-up the developed tasks.

CONCLUSION C/CAR/WG/7/2 SEMINAR ON AVIATION RADIO ELECTRIC SPECTRUM MANAGEMENT AND PREPARATION FOR THE WRC-2011

That, in view of the preparation and support for the ICAO position for the ITU World Radiocommunication Conference 2011 (WRC-11):

a) the ICAO NACC Regional Office request headquarters to organise in the NACC Office by the first semester of 2010, a bilingual Seminar for the CAR Region on Aviation Radio Electric Spectrum Management, in which all the necessary topics are included to prepare States to understand and support the ICAO position for the ITU WRC-2011; and,

b) States/Territories/International Organisations facilitate the participation of their experts in this seminar, as well as inform the designated point-of-contact to support the ICAO position.

CONCLUSION C/CAR/WG/7/3 PROTECTION OF WAFS WORKSTATIONS

That the Civil Aviation Authorities of States/Territories, in coordination with the Meteorological Authorities, adopt the necessary measures to protect their WAFS workstations against lightning strikes, current surges and voltage spikes in the electrical power supply.

CONCLUSION C/CAR/WG/7/4 SUPPORT TO METEOROLOGISTS TO ATTEND THE ICAO SEMINAR/WORKSHOP ON THE DEVELOPMENT OF A QUALITY ASSURANCE SYSTEM TO ENHANCE THE AERONAUTICAL METEOROLOGICAL SERVICE

That the States' Civil Aviation Authorities, in coordination with the Meteorological Authorities, make their best effort to ensure that aeronautical meteorologists of their States participate in the ICAO Seminar / Workshop on the Development of a Quality Assurance to enhance the Aeronautical Meteorological Service, to be held in Jamaica, 25-27 November 2009.

CONCLUSION C/CAR/WG/7/5 TERMS OF REFERENCE AND WORK PROGRAMME OF THE C/CAR WORKING GROUP

That the C/CAR States/Territories/International Organisations adopt the revised Terms of Reference and Work Programme included in Appendix F to this part of the report, and the meeting host rotation list shown in Appendix G to this part of the report, for the C/CAR Working Group.

APPENDIX B

TERMS OF REFERENCE AND WORK PROGRAMME OF THE CENTRAL CARIBBEAN WORKING GROUP (C/CAR/WG)

1 Background

The Central Caribbean Working Group was established by Conclusion 4/10 of the Fourth Meeting of Directors of Civil Aviation of the Central Caribbean, held in the Cayman Islands from 17 to 20 May 2000, to deal with the development of air navigation systems/service issues in the Central Caribbean. The aforementioned Meeting also agreed that ICAO should assist in the establishment of the Working Group and provide Secretariat services.

Conclusion 4/10 Establishment of a Central Caribbean Work Group (C/CAR/WG)

That,

a) an informal work group dealing with the air navigation areas be established for the Central Caribbean;

b) the ICAO Regional Office prepare the Terms of Reference and Work Programme for the work group and provide Secretariat services;

c) the ICAO Regional Office, by 30 July 2000, should circulate the Terms of Reference and Work Programme for the work group to all States/Territories in the Central Caribbean as well as to relevant International Organisations for comments and invite them for the nomination of members of the working group;

d) the work of the C/CAR ATS Task Force be incorporated into the tasks of the work group and that the ATS Task Force be disbanded, with the appropriate note of gratitude being sent to its members by the ICAO Regional Office on behalf of the States/Territories of the Central Caribbean; and

e) a meeting of the work group be scheduled prior to the Fifth Meeting of the C/CAR Directors of Civil Aviation.

2. Terms of Reference

a) coordination of the implementation of the CAR/SAM Air Navigation Plan and other relevant regional documentation, in compliance with ICAO SARPs, as required;

b) facilitation for the development of emerging aviation issues focusing on continued improvements to operational efficiency through coordinating harmonised procedures and promote interoperability of networks and implementation of new technologies;

c) development of implementation initiatives and associated technologies to improve safety, increase operational and economic efficiency and/or capacity of regional Air Navigation Services;

d) coordination to implement the performance objectives related to Regional Air Navigation Services with regard to GPIs;

e) share information on implementation initiatives for enhancing compatibility of air traffic operations; and

f) technical advice to the C/CAR Directors General as applicable, initiatives to the CAR Regional Implementation Plan and any other necessary steps for implementation.

3. Work Programme

a) consider the deadlines for implementation of facilities, services and procedures to improve ANS in the CAR Region;

b) develop guidelines and recommendations for States/Territories to implement their national plans;

c) recommend the implementation of air navigation facilities and services to ensure interregional harmonisation, taking due account of performance metrics, environmental benefits and operational issues;

d) provide recommendations to improve human resources planning and development in line with ICAO guidelines;

e) associate in a logical manner the implementation of initiatives with the seven components of Doc 9854, (AOM, DCB, AO, TS, CM, AUO ATMSDM) as appropriate;

f) quantify cost/benefit analysis in terms of performance measures, deadlines, responsible body for implementation and results as well as human factors performance;

g) report the work programme progress to the NACC Working Group.

4. Working Methods

a) the Chairperson of the C/CAR/WG will be a representative from the State/Territories designated by the Meeting for a three-sessions period;

b) avoid duplication of work and maintain a close coordination between States/Territories/International Organisation and users to optimised the use of available resources and experience;

c) carry out the coordination of tasks using electronic tools and teleconferences to guarantee an efficient exchange of information, when required, etc.;

d) the meetings will be convened every year or when necessary and the ICAO Regional Office will provide Secretariat services.

5. Membership

Aruba, Bahamas, Cayman Islands, Colombia, Cuba, Dominican Republic, Haiti, Jamaica, Mexico, Netherlands Antilles, Panama*, Turks and Caicos Islands, United Kingdom, United States, Venezuela*, ACI, COCESNA, IATA, IFALPA and IFATCA.

* To be invited.

INTERNATIONAL CIVIL AVIATION ORGANIZATION

NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN REGIONAL OFFICE

PERFORMANCE BASED AIR NAVIGATION IMPLEMENTATION PLAN

FOR THE NAM/CAR REGIONS

1. INTRODUCTION

1.1 The Global Plan describes a strategy aimed at achieving near and medium term ATM benefits on the basis of available and foreseen aircraft capabilities and ATM infrastructure. It contains guidance on ATM improvements necessary to support a uniform transition to the ATM system envisioned in the global ATM operational concept (Doc 9854). The operational concept presents the ICAO vision of an integrated, harmonised and globally interoperable ATM system.

1.2 The Strategic Vision is "*To foster implementation of a seamless, global air traffic management system that will enable aircraft operators to meet their planned times of departure and arrival and adhere to their preferred flight profiles with minimum constraints and without compromising agreed levels of safety."*

1.3 This vision is refined in the Mission of Implementation as follows:

To develop a seamless, globally coordinated system of air navigation services that will cope with worldwide growth in air traffic demand while:

- *improving upon the present levels of safety;*
- *improving upon the present levels of regularity;*
- *improving upon the overall efficiency and capacity of airspace and airports;*
- *improving operations allowing for capacity increase while minimising fuel consumption and aircraft engine emissions;*
- *increasing the availability of user-preferred flight schedules and profiles; and*
- *minimising differing equipment carriage requirements between regions.*

1.4 Having a strategic geographical location at the confluence of ATS routes connecting the major destinations, the airspace has become a vital link to the smooth flow of traffic between major airspace in NAM and CAR Regions.

1.5 The complexities of Caribbean airspace are unique in nature. Based on the topography, various types of aircraft from Helicopter to bigger type of jet aircraft are being operated in various sectors. Restricted airspace for Military flying and the mixed type of aircraft with unmatching capabilities occupy the airspace and their conflicting demands need to be accommodated.

1.6 Civil commercial, Military, general Aviation, Space research, hobby and adventure flying, flying training, helicopter flying have been constantly increasing and thereby the airspace has been getting congested day by day. Technological innovations provide more simple and flexible solutions not only for transportation needs but also for national security and economic development.

1.7 Entry of Low Cost carriers with attractive flying schemes has boosted traffic in the recent past and the air transport industry is in the upswing with more and more air operations. These carriers have not only become a potential competitors to the currently established airlines but also potential challengers to the ATM system as the airspace/ airports are getting more and more congested and leading to delay and holding resulting in burning of extra fuel.

1.8 Military flying activities with frequent airspace and airport closures implies additional civil flight operations and workload on the capacity and air traffic management point of view.

1.9 Recently the rate of traffic growth is at an average of 3.3% with the advent of new routes and airlines commencing operations as Caribbean destinations have become more popular for international tourist and commercial interest. The total operations at the main airports of the CAR Region in the period 2002 to 2005 reflected a positive trend of 1.92%, the global trend is 6%. The main rates of traffic growing were:

Cuba	6.41%
Dominican Republic	5.74%
Belize	4.77%
El Salvador	3.06%
México	2.57%
U. S. (P. R) (V. I)	2.51%
Guatemala	2.51%
Costa Rica	2.42%

1.10 What is reflected in the following tables is continuing growth for the next several years:

Total (international and domestic) services of airlines of ICAO contracting States
(NACC States - Percentage of world traffic 2008)

Aircraft Kilometers (millions)	Aircraft Departures (thousands)	Passengers Carried (thousands)	Passenger-Kilometers Performed (millions)	Passenger load factor (%)	Tonne-kilometres Performed		Tonne Kilometers available (millions)	Weight Load Factor (%)
					Freight (millions)	Total (millions)		
13,523	10,652	782,200	1,434,423	80	41,279	17,3977	28,3610	61

International services of airlines of ICAO contracting States - NACC States - Percentage of world traffic 2008

Aircraft Kilometers (millions)	Aircraft Departures (thousands)	Passengers Carried (thousands)	Passenger-Kilometers Performed (millions)	Passenger load factor (%)	Tonne-kilometres performed		Tonne Kilometers available (millions)	Weight Load Factor (%)
					Freight (millions)	Total (millions)		
3,489	1,244	118,805	488,219	79	24,028	69,577	115,130	60

1.11 The regional distribution of scheduled traffic 2008 by aircraft departures and by passengers carried is depicted in the following Tables 1 and 2.

Regional Distribution of Scheduled Traffic – 2008

NAM/CAR Aircraft Departures 10.7 Million

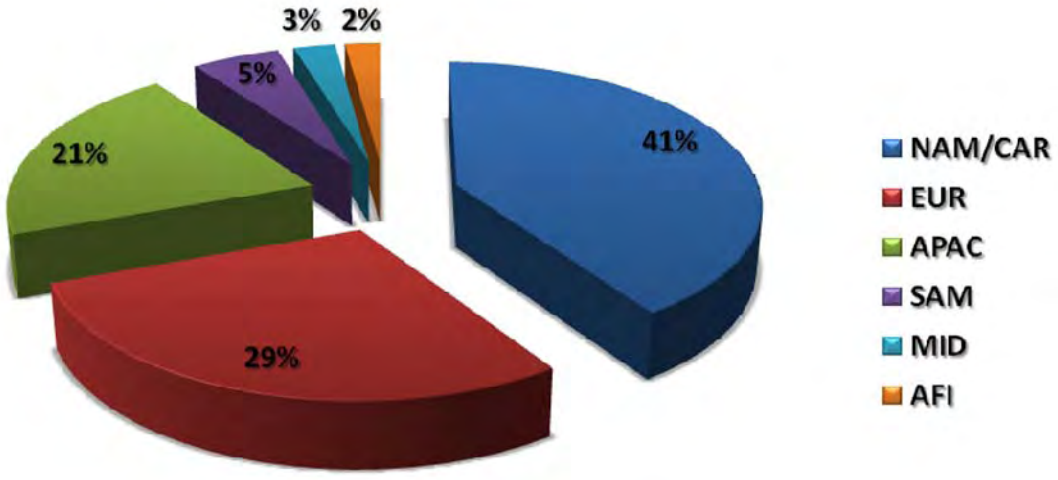


Table 1

Regional Distribution of Scheduled Traffic – 2008

NAM/CAR Passengers carried 782.2 Million

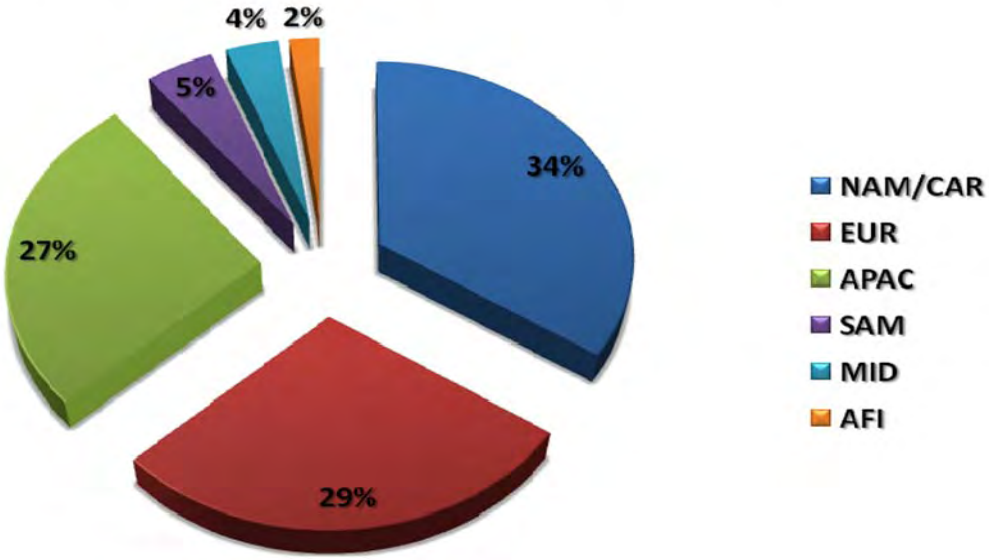


Table 2

1.12 More challenges are in the horizon for ATM seamless system in CAR and NAM Regions. The expectation is more and more air operations among CAR and NAM Regions which will require gradual operational developments of ATM system to ensure an optimum air traffic flow towards among certain areas or through them, during periods in which the demand exceeds or is foreseen to exceed the available capacity.

1.13 New aircraft are capable of extremely accurate navigation during all phases of flight and many are equipped with satellite-based communication. Aircraft operations growth also has resulted in a relatively young airline fleet, most equipped with some or all of enhanced capabilities.

1.14 Implementation programmes are required to be addressed with a performance-based approach, in order to achieve improvements to the air navigation system and environmental benefits, thus preventing costly implementation processes.

2. REGIONAL PLANNING PROCESS

2.1 The regional planning process should be conducted in accordance with the global plan initiatives (GPIs) of the *Global Air Navigation Plan* (Doc 9750) and the ICAO vision for an integrated, harmonised and globally interoperable ATM system, as established in the Global ATM Operational Concept (Doc 9854).

2.2 The objective is to achieve the maximum level of inter-operability and harmonisation among sub-systems for a seamless and interoperable regional ATM system for all users during all phases of flight, complying with agreed levels of safety, providing optimum economic operations, to be environmentally sustainable and to fulfil national aviation security requirements.

2.3 Planning should be developed through performance objectives with clearly defined implementation requirements. The planning horizon should be focused on the strategies of development, activities or main tasks for two periods – that of less than 5 years (short-term) and 6 to 10 years (medium-term). Some already identified tasks to be analysed beyond this period may be included if they conform to ICAO ATM requirements**.**

3. PERFORMANCE OBJECTIVES

3.1 The performance objectives should be developed using a performance approach to reflect the necessary activities needed to support regional ATM system implementation.

3.2 During its life cycle, the performance objectives may change in a dynamic manner depending on the ATM system's evolution; therefore, these should be coordinated with and available to all interested parties within the ATM Community in order to achieve timely communication throughout the implementation process. The establishment of collaborative decision-making processes (CDM) ensures that all stakeholders are involved in and concur with the requirements, tasks and timelines.

3.3 The following sections describe aspects pertaining to the performance objectives and required changes, and how these changes foster harmonised improvements throughout the regional ATM system.

Benefits

3.4 Each performance objective should establish a group of common benefits for all stakeholders and be achieved through the strategies, the operational and technical activities planned. These benefits should be in accordance with the ICAO strategic objectives, and the ATM community expectations.

Strategy

3.5 The air navigation system evolution requires a progressive strategy with tasks and actions that best represent the national and regional implementation in accordance with the global planning framework. The final goal is to achieve harmonised regional implementation on a continuous evolution towards a global seamless ATM system.

3.6 This means the need to develop short and medium term implementation programmes, focusing on the necessary changes to the system in which a clear work commitment will be carried out by the parties involved.

3.7 The implementation should define additional tasks and activities, maintaining a direct relation with ATM system components such as airspace organisation, civil-military coordination, human factors, aeronautical regulations, operational safety management systems and environmental protection, among others.

3.8 The framework for regional activities should also include the coordination of activities with military authorities who play an important role in helping to ensure that the best use is made of the available airspace resources by all airspace users while still safeguarding national security.

3.9 The following principles should be considered when developing implementation programmes:

- The work should be organised using project management techniques and performance-based objectives in alignment with the Global Plan and the strategic objectives of ICAO. The implementation programmes should be in accordance with the progress, characteristics and regional implementation needs.

- All activities involved in accomplishing the performance objectives should be designed following strategies, concepts, action plans and roadmaps to align the regional work with the fundamental objective of achieving interoperability and seamlessness to the highest level.

- The implementation tasks should encourage human resources optimisation, as well as promote the use of electronic communications means such as internet, videoconference, teleconference, phone and fax. It should be ensured that all the resources will be used efficiently, avoiding any duplication or unnecessary work.

- It should be ensured that performance objectives can be measured against timelines and the regional progress achieved can be easily reported to the Air Navigation Commission and to the ICAO Council.

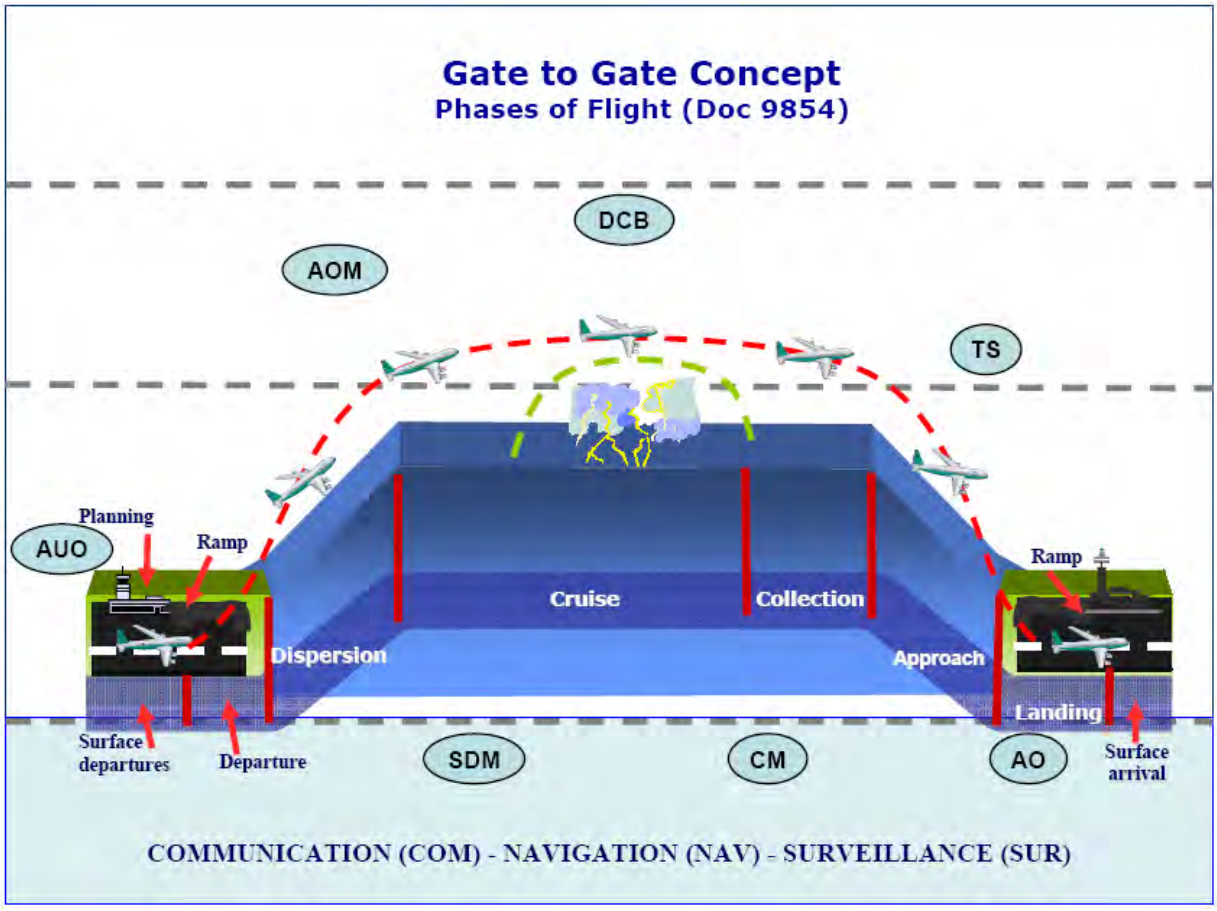
Identification of tasks

3.10 Each task should be identified firstly by the activity associated with components of the ATM system when describing the tasks. According to the Doc 9854, the designators for ATM components are as follows:

- **AOM** — Airspace organisation and management
- **DCB** — Demand and capacity balancing
- **AO** — Aerodrome operations
- **TS** — Traffic synchronisation
- **CM** — Conflict management
- **AUO** — Airspace user operations
- **ATM SDM** — ATM service delivery management

3.11 Each designator looks to link ATM system component pertains to tasks and activities related to phases of air operations, ATC en-route, terminal and airport, capacity management, airspace management including its flexible use and aeronautical information management.

3.12 The infrastructure includes the ground technical systems and capacity required to support operations such as communications, navigation and surveillance, data processing, inter-operability of systems, information management system and spectrum management, including both civil and military systems. The following diagram shows the ATM components in relation to the phases of flight:



3.13 The status is mainly focused on monitoring the progress of the implementation activity as it progresses toward a specific completion date. The status of the activity is defined as follows:

■**Valid**	the feasibility and benefits of an activity has been confirmed, work has been initiated but the activity itself has not been finalised.
■**Completed**	implementation of the activity has been finalised by the involved parties.
■**Tentative**	the feasibility and benefits of an activity investigated or to be developed.

3.14 A tentative status indicates a potential activity; normally this activity will not be included in the regional planning documents unless it is an ICAO defined requirement.

Relationship between Performance Objectives and Global Plan Initiatives

3.15 The 23 GPIs provide a global strategic framework and are designed to contribute to achieving the regional performance objectives and to support the logical progression of regional implementation programmes.

3.16 Each performance objective should be referenced to the pertinent GPIs. The goal is to ensure that the work process will be integrated into the global planning framework

4 NATIONAL ACTION PLAN

4.1 States should develop their own national action plans reflecting the specific activities or tasks along with the expected benefits to be obtained and the date by which each should be completed according to the national needs and based on the regionally agreed performance objectives.

4.2 The strategic activities should include the necessary detailed actions to successfully achieve the national performance objectives, relating these activities with the short and medium term regionally agreed performance objectives.

4.3 National plans should identify the individuals or teamwork responsible for achieving the objectives as well as a means for monitoring and eventually reporting progress on the actions to ICAO. The responsibilities and time-tables should be clearly defined so that the involved parties are aware of their commitments throughout the implementation process.

4.4 Additionally, national action plans should include adequate means to provide information on implementation progress achieved such as through a periodic reporting process. This facilitates senior management levels' efforts to prioritise the actions and resources required. The same information provided to ICAO will allow feedback and assistance to be provided specific for each Region as they work to achieve a Global ATM system.

4.5 For the development of a national action plan, the following subjects, as a minimum, should be analysed and properly documented:

a) Characteristics of the industry

Enumerate the current and projected growth of Air Traffic in your state and also identify, if any, the efficiency challenges in your State.

. b) The air navigation service provider

Describe briefly the organisation providing the air navigation services in your State including its institutional format, capital structure, principal shareholders and the management.

c) Major stakeholders/partners

Identify the major stakeholders/partners such as the air navigation service providers, the airspace users (the commercial airlines using the airspace, business aviation, general aviation, military, etc.) and the potential funding sources.

d) Risks and Limitations

Enumerate the limitations of the current conventional air navigation systems that may arise and which solution would depend on the State/Territory/International Organisation.

e) Risk Management

What are the identified risks and briefly describe the risk mitigation plans/techniques.

f. National Performance-based Air Navigation Plan

i) Define the geographical scope of the National Air Navigation Plan and determine the major traffic flows.
ii) Explain briefly the vision of your State/Territory/International Organisation for achieving a seamless Global ATM system in accordance with ICAO Doc 9854.
iii) Determine the current air navigation infrastructure and services.
iv) Through gap analysis define near and medium term operational improvements.
v) Using a standard Performance framework form (PFF), develop different national performance objectives by determining relevant tasks and ensure the linkage to ATM components and Global Plan Initiatives (GPIs).

CAR/NAM REGIONS PERFORMANCE OBJECTIVES

1. OPTIMISE THE ATS ROUTE STRUCTURE EN-ROUTE AIRSPACE				
Benefits				
Environment **Efficiency**	• reductions in fuel consumption; • ability of aircraft to conduct flight more closely to preferred trajectories; • increase in airspace capacity; • facilitate the utilisation of advanced technologies (e.g., FMS based arrivals) and ATC decision support tools (e.g., metering and sequencing), thereby increasing efficiency.			
Strategy ***(2008 - 2015)***				
ATM OC Component	**TASK DESCRIPTION**	**START-END**	**RESPON-SIBLE**	**STATUS**
AOM	a) Develop regional action plan	2007	GREPECAS	Completed
	b) Develop Airspace Concept based in CAR /SAM PBN Roadmap, in order to design and implement a trunk route network, connecting major city pairs in the upper airspace and for transit to/from aerodromes, on the basis of PBN and, in particular, RNAV/5, taking into account interregional harmonisation	2010	States	Valid
	c) Develop performance measurement plan	2010	States	Valid
	d) Formulate safety plan	2010	States	Valid
	e) Establish collaborative decision making (CDM) process	2010	States	Valid
	f) Publish national regulations for aircraft and operators approval using PBN manual as guidance material	2010	States	Valid
	g) Identify training needs and develop corresponding guidelines	2010	States	Valid
	h) Implementation of ATS routes enroutes	2010	States	Valid
	i) Monitor implementation progress in accordance with CAR/SAM PBN implementation roadmap and State implementation plan	On going	GREPECAS	Valid
GPIs	GPI/5: performance-based navigation, GPI/7: dynamic and flexible ATS route management, GPI/8: collaborative airspace design and management, GPI/10: terminal area design and management, GPI/11: RNP and RNAV SIDs and STARs and GPI/12: FMS-based arrival procedures			

2. OPTIMISE THE ATS ROUTE STRUCTURE IN TERMINAL AREA AIRSPACE				
Benefits				
Environment **Efficiency**	• reductions in fuel consumption; • ability of aircraft to conduct flight more closely to preferred trajectories; • increase in airspace capacity; • facilitate utilisation of advanced technologies (e.g., FMS based arrivals) and ATC decision support tools (e.g., metering and sequencing), thereby increasing efficiency.			
Strategy ***(2008 - 2016)***				
ATM OC Component	**TASK DESCRIPTION**	**START-END**	**RESPON-SIBLE**	**STATUS**
AOM	a) Develop regional PBN implementation plan	2007	GREPECAS	Completed
	b) Develop State PBN implementation plan	2010	States	Valid
	c) Develop Airspace Concept based in CAR /SAM PBN Roadmap, in order to design and implement optimised standard instrument departures (SIDs), standard instrument arrivals (STARs), instrument flight procedures, holding, approach and associated procedures, on the basis of PBN and, in particular RNAV-1 and Basic-RNP1	2011	States	Valid
	d) Develop performance measurement plan	2010	States	Valid
	e) Formulate safety plan	2010	States	Valid
	f) Establish collaborative decision making (CDM) process	2010	States	Valid
	g) Publish national regulations for aircraft and operators approval using PBN manual as guidance material	2010	States	Valid
	h) Identify training needs and develop corresponding guidelines	2010	States	Valid
	i) Develop system performance monitoring plan	2010	States	Valid
	j) Develop a regional strategy and work programme for implementation of SIDs and STARs	2011	States	Valid
	k) Monitor implementation progress in accordance with CAR/SAM PBN implementation roadmap and State implementation plan	On going	GREPECAS	Valid
GPIs	GPI/5: performance-based navigation, GPI/7: dynamic and flexible ATS route management, GPI/8: collaborative airspace design and management, GPI/10: terminal area design and management, GPI/11: RNP and RNAV SIDs and STARs and GPI/12: FMS-based arrival procedures.			

3. IMPLEMENT RNP APPROACHES				
Benefits				
Efficiency **Safety**	• Improvements in capacity and efficiency at aerodromes. • Improvements in safety at aerodromes.			
Strategy (2008-2016)				
ATM Component	**TASK DESCRIPTION**	**START-END**	**RESPON-SIBLE**	**STATUS**
AOM	a) Develop State PBN implementation plan.	2009	States	Valid
	b) Develop Airspace Concept based in CAR /SAM PBN Roadmap, in order to design and implement RNP APCH with Baro-VNAV in accordance with assembly resolution A36-23, and RNP AR APCH where beneficial	2010	States	Valid
	c) Develop performance measurement plan	2010	States	Valid
	d) Formulate safety plan	2010	States	Valid
	e) Establish collaborative decision making (CDM) process	2010	States	Valid
	f) Publish national regulations for aircraft and operators approval using PBN manual as guidance material.	2010	States	Valid
	g) Identify training needs and develop corresponding guidelines	2010	States	Valid
	h) Implementation of APV procedures	2016	States	Valid
	i) Formulate system performance monitoring plan	2011	States	Valid
	j) Monitor implementation progress in accordance with CAR/SAM PBN implementation roadmap and State implementation plan	On going	GREPECAS	Valid
GPIs	GPI/5: performance-based navigation, GPI/7: dynamic and flexible ATS route management, GPI/8: collaborative airspace design and management, GPI/10: terminal area design and management, GPI/11: RNP and RNAV SIDs and STARs and GPI/12: FMS-based arrival procedures.			

4. ENHANCE CIVIL/MILITARY COORDINATION AND CO-OPERATION				
Benefits				
Efficiency	• increase airspace capacity;			
Continuity	• allow a more efficient ATS route structure • ensure safe and efficient action in the event of unlawful interference; • make available military restricted airspace more hours of the day so that aircraft can fly on their preferred trajectories; and • improve search and rescue services.			
Strategy (2008-2012)				
ATM Component	**TASK DESCRIPTION**	**START-END**	**RESPON-SIBLE**	**STATUS**
AOM	a) Develop guidance material on civil/military coordination and co-operation to be used by States/Territories to develop national policies, procedures and rules.	2007	ICAO	Completed
	b) Establish civil/military coordination bodies.	2008 – 2012	States	Valid
	c) Arrange for permanent liaison and close cooperation between civil ATS units and appropriate air defence units.	2008 – 2012	States	Valid
	d) Conduct a regional review of special use airspace.	2008 – 2012	GREPECAS	Valid
	e) Develop a regional strategy and work programme for implementation of flexible use of airspace in a phased approach for dynamic sharing of restricted airspace	2008 – 2010	States	Valid
	f) full integration of civil and military aviation activities by 2012.	2008 – 2012	States	Valid
	g) Monitor implementation progress.	On going	GREPECAS	Valid
GPIs	GPI/1: flexible use of airspace.			

5. ALIGN UPPER AIRSPACE CLASSIFICATION				
Benefits				
Efficiency **Continuity**	• better utilisation of data link communication; • optimise use of flight plan data processing systems; • enhance airspace management coordination, message exchange capabilities and utilisation of flexible and dynamic airspace management techniques; • harmonisation of interregional coordination processes; • improvement of airspace interoperability and seamlessness; and • ensure the provision of positive air traffic control services to all aircraft operations.			
Strategy				
ATM Component	**TASK DESCRIPTION**	**START-END**	**RESPON-SIBLE**	**STATUS**
	a) Develop a regional implementation strategy and work programme for the implementation of ICAO Annex 11 airspace Class A above FL 195.	2007	GREPECAS	Completed
	b) Identify key stakeholders, ATCOs, pilots, and relevant international organisations for coordination and cooperation on changes for new airspace organisation, using a CDM process.	2008 – 2010	States	Valid
	c) Develop new national airspace organisation in accordance with ICAO provisions, as needed.	2008 – 2010	States	Valid
AOM	d) Coordinate changes for regional and national documents; • Doc 8733, CAR/SAM ANP; • AIP; and, • ATS letters of agreement.	2008 – 2012	ICAO - States	Valid
	e) Carry out improvements in ground systems to support new airspace organisation configurations, as necessary.	2008 – 2012	States	Valid
	f) Publish national regulatory material for implementation of new rules and procedures to reflect airspace organisational changes.	2008 – 2010	States	Valid
	g) Train ATCOs and pilots in new procedures, including all civil and military airspace users, as required;	2008 – 2012	States	Valid
	h) Monitor implementation progress.	On going	GREPECAS	Valid
GPIs	GPI/4: align upper airspace classification.			

6. IMPROVE DEMAND AND CAPACITY BALANCING

Benefits

Environment	• reduction in weather- and traffic-induced holding, leading to reduced fuel consumption and emissions;
Efficiency	• improved and smoother traffic flows; • improved predictability; • improved management of excess demand for service in ATC sectors and aerodromes; • improved operational efficiency; • enhanced airport capacity; • enhanced airspace capacity; and
Safety	• improved safety management.

Strategy

ATM Component	TASK DESCRIPTION	START-END	RESPON-SIBLE	STATUS
DCB	a) Identify key stakeholders (ATC service providers and users, military authorities, airport authorities, aircraft operators and relevant international organisations) for purposes of coordination and cooperation, using a CDM process.	2008	GREPECAS	Valid
	b) Identify and analyse traffic flow problems and develop methods for improving efficiencies on a gradual basis, as needed, through enhancements in current: i. airspace organisation and management (AOM) and ATS routes structure (unidirectional routes) and SID and STARS; ii. communication, navigation and surveillance systems; iii. aerodrome capacity; iv. ATS capacity; v. training for pilots and Controllers; and vi. ATS letters of agreement.	2008 – 2012	GREPECAS	Valid
	c) Define common elements of situational awareness between FMUs; i. common traffic displays, ii. common weather displays (Internet), iii. communications (teleconferences, web), and, iv. daily teleconference/messages methodology advisories.	2010 – 2012	GREPECAS	Valid
	d) Develop methods to establish demand/capacity forecasting;	2007 – 2012	GREPECAS	Valid
	e) Develop a regional strategy and work programme for harmonised implementation of ATFM service.	2007	GREPECAS	Completed

Medium term				
DCB	f) Develop a regional strategy for the implementation of flexible use of airspace (FUA); i. assess use of airspace management processes; ii. improve current national airspace management to adjust dynamic changes in tactical stage to traffic flows; iii. introduce improvements in ground support systems and associated procedures for the extension of FUA with dynamic airspace management processes; and iv. implement dynamic ATC sectorisation in order to provide the best balance between demand and capacity to respond in real-time to changing situations in traffic flows, and to accommodate in short-term the preferred routes of users.	2008 – 2010	GREPECAS States	Valid
	g) Define common electronic information and minimum databases required for decision support and alerting systems for interoperable situational awareness between Centralised ATFM units.	2008 – 2014	GREPECAS States	Valid
	h) Develop regional procedures for efficient and optimum use of aerodrome and runway capacity.	2008 – 2012	GREPECAS	Valid
	i) Develop a regional ATFM procedural manual to manage demand/capacity balancing.	2008 – 2010	GREPECAS	Valid
	j) Develop a regional strategy and framework for the implementation of a Centralised ATFM unit.	2008 – 2012	GREPECAS	Valid
	k) Develop operational agreements between Centralised ATFM units for interregional demand/capacity balancing.	2008 – 2015	GREPECAS	Valid
	l) Monitor implementation progress.	On going	GREPECAS	Valid
GPIs	GPI/1: flexible use of airspace; GPI/6: air traffic flow management; GPI/7: dynamic and flexible ATS route management; GPI/9: Situational awareness; GPI/13: aerodrome design and management; GPI/14: runway operations; and GPI/16: decision support and alerting systems.			

7. IMPROVE ATM SITUATIONAL AWARENESS				
Benefits				
Efficiency	• enhanced traffic surveillance; • enhanced collaboration between flight crew and the ATM system; • improved collaborative decision-making through sharing electronic aeronautical data information; • reduced of workload for both pilots and controllers; • improved operational efficiency; • enhanced airspace capacity; • improved implementation on a cost-effective basis;			
Safety	• improved available electronic terrain and obstacle data in the cockpit; • reduced of the number of controlled flight into terrain related accidents; and • improved safety management.			
Strategy ***Near term***				
ATM Component	**TASK DESCRIPTION**	**START-END**	**RESPON-SIBLE**	**STATUS**
SDM	a) Identify parties concerned.	2009	GREPECAS	Completed
	b) Identify the automation level required according to the ATM service provided in airspace and international aerodromes, assessing i. operational architecture design, ii. characteristics and attributes for interoperability, iii. data bases and software, and iv. technical requirements.	2008 – 2010	States	Valid
	c) Improve ATS interfacility communication.	2008 – 2015	States	Valid
	d) Implement flight plan data processing system and electronic transmission tools.	2008 – 2012	States	Valid
	e) Implement radar data sharing programs where benefits can be obtained.	2008 – 2012	States	Valid
	f) Develop situational awareness training programmes for pilots and controllers.	2008 – 2012	States	Valid
	g) Implement ATM surveillance systems for situational traffic information and associated procedures.	2010 – 2015	States	Valid
	h) Implement ATS automated message exchanges, as required i) FPL, CPL, CNL, DLA, etc.	2008 – 2012	GREPECAS States	Valid

	j) Implement automated radar handovers, where able.	2008 – 2014	States	Valid
	k) Implement ground and air electronic warnings, as needed i. Conflict prediction ii. Terrain proximity iii. MSAW iv. DAIW v. Surveillance system for surface movement.	2008 – 2012	States	Valid
	l) Implement data link surveillance technologies and applications: ADS, CPDLC, AIDC, as required.		States	Valid
Medium term				
ATM Component	**TASK DESCRIPTION**	**START-END**	**RESPON-SIBLE**	**STATUS**
	m) Implement additional/advanced automation support tools to increase sharing of aeronautical information i. ETMS or similar ii. MET information iii. AIS/NOTAM dissemination iv. Surveillance tools to identify airspace sector constraints v. A-SMGC in specific aerodromes, as required.	2010 – 2012	States	Valid
	n) Implement teleconferences with ATM stakeholders.	2008 - 2014	States	Valid
	o) Monitor implementation progress	On going	GREPECAS	Valid
GPIs	GPI/1: flexible use of airspace; GPI/6: air traffic flow management; and GPI/7: dynamic and flexible ATS route management; GPI/9: Situational awareness; GPI/13: aerodrome design and management; GPI/14: runway operations; and GPI/16: decision support and alerting systems; GPI/17: implementation of data link applications; GPI/18: aeronautical Information; GPI/19: meteorological systems.			

8. ELIMINATION OF IDENTIFIED AOP DEFICIENCIES (wildlife and bird hazard reduction, rescue and fire fighting services and aerodrome emergency planning)				
Benefits				
Safety Efficiency	• Strengthen States´ safety oversight responsibility on aerodrome operations • Enhanced safety, efficiency and regularity of aerodrome operations in the States. • Uniform implementation of the relevant ICAO SARPs and/or applicable national regulations in the CAR States/Territories.			
Strategy ***Short Term (2010)*** ***Medium term***				
ATM COMPONENT	**TASKS DESCRIPTION**	**START – END**	**RESPON-SIBLE**	**STATUS**
AO	a) to carry out a survey to States to determine the current level of implementation with respect to the three major deficiencies in the NAM/CAR Regions.	August 2009 – December 2009	Regional Office	Valid
	b) to evaluate training needs in the CAR Region, if any; and coordinate these with the training needs for aerodrome certification	August 2009 – December 2009.	States/ Regional Office	Valid
	c) to identify in coordination with States specific technical assistance needs, if any	August 2009 – December 2009.	States / Regional Office	Valid
	d) to develop and implement an action plan to meet the identified training needs in coordination with those for aerodrome certification	August 2009 – December 2009	States	Valid
	e) to develop and implement an action plan for technical assistance needs in coordination with the respective States and TCB	August 2009 – December 2009	States /	Valid
	f) States to develop and implement an action plan to remove the three major deficiencies	December 2009 – March 2010.	States	Valid
	g) To develop and implement an efficient monitoring system for correcting the three major deficiencies in the respective CAR States/Territories.	December 2009 – June 2010.	States	Valid
GPIs	GPI/13: Aerodrome operations.			

9. IMPLEMENTATION OF AERODROME CERTIFICATION				
Benefits				
Efficiency **Safety**	• Ensure aerodrome operators comply with relevant ICAO SARPs and/or applicable national regulations. • Continued provision of safe and efficient aircraft operations at aerodromes • Strengthen States´ safety oversight responsibility on aerodrome operations			
Strategy **Short Term (2010)** **Medium term**				
ATM COMPONENTS	**TASK DESCRIPTION**	**START – END**	**RESPON-SIBLE**	**STATUS**
AO	a) States to analyse Annex 14, Volume I provisions on aerodrome certification vis-avis national legislations and regulations	August 2009 – December 2009.	States	Valid
	b) States to analyse guidance in the Manual on Certification of Aerodromes (Doc 9774) vis-avis national regulations	August 2009 – December 2009	States	Valid
	c) States to develop and/or complete national regulations on aerodrome certification as necessary; and training of aerodrome inspectors	August 2009 – December 2009	States/Regional Office	Valid
	d) States to develop an action plan for certifying all remaining aerodromes used for international operations, including implementation of SMS	On going	States	Valid
	e) States to implement the action plan; to provide yearly feedback to NACC Regional Office regarding the status of the implementation of aerodrome certification	On going	States	Valid
GPIs	GPI/13: aerodrome design and management; GPI/14: runway operations.			

10. PROTECTION AND OPTIMUM USAGE OF RADIOFREQUENCY SPECTRUM				
Benefits				
Efficiency **Safety**	• Efficient use of aviation radio spectrum • Ensure availability of frequencies for services and aeronautical systems • Assurance of aviation spectrum			
Strategy ***Near term (2012)***				
ATM Component	**TASK DESCRIPTION**	**START-END**	**RESPON-SIBLE**	**STATUS**
AOM, DCB, AO, TS, CM, AUO, SDM	a) Ensure Regional coordination for the protection of the aviation spectrum at WRC-11, and beyond	2009-2011	S/T/O, ICAO	Valid
	b) Ensure Participation of Civil Aviation Experts in State's delegation to ITU WRC Meetings	2009-2010	S/T/O	Valid
	c) Disseminate ICAO policy statements of requirements for aeronautical radio frequency spectrum	2009-2010	ICAO	Valid
	d) Implement frequency spectrum management	2009-2011	S/T/O	Valid
	e) Support ICAO Position during WRC-11	2012	S/T/O	Valid
	f) Monitor the understanding of radio spectrum management and support on WRC-2011	2009-2012	ICAO	Valid
GPIs	GPI/1: flexible use of airspace; GPI/6: air traffic flow management; GPI/7: dynamic and flexible ATS route management; GPI/9: Situational awareness; GPI/14: runway operations; GPI-21: Navigation Systems, GPI-22: Communications Infrastructure and GPI-23: Aeronautical radio spectrum.			

11. OPTIMISATION AND MODERNISATION OF COMMUNICATION INFRASTRUCTURE

Benefits

Efficiency	• Improvements in coordinations • Increase availability of communications • Avoid misunderstandings in communications • Facilitate the utilisation of advanced technologies
Continuity	• improvement of airspace interoperability and seamlessness; and • ensure the provision of positive air traffic control services to all aircraft operations.
Safety	• Improvement in safety in airspaces and aerodromes

Strategy
Near Term (2012)

ATM Component	TASK DESCRIPTION	START-END	RESPON-SIBLE	STATUS
AO, TS, CM, AUO AOM, SDM	a) Review the status of performance of current AFS Services and identify deficiencies or improvements (AFTN, oral ATS services, A/G communications)	2009	WGs	Valid
	b) Analysis and formulation of plans for implementing improvement or solving deficiencies	2009-2010	WG	Valid
	c) Develop Regional ATN Planning documents	2009-2012	CNS/ATM/SG	Valid
	d) Coordination and testing of ATN G-G Application implementation aspects	2009-2012	WGs	Valid
	e) Planning and trial activities for A-G Application implementation	2010-2011	WGs	Valid
	f) Technical review of Regional Telecommunication networks for ATN implementation	2009-2010	MEVA TMG, WGs	Valid
	g) Implement available technologies in to facilitate ground and airborne applications (CPDLC, ADS-C, ADS-B)	2009-2012	States , user	Valid
	h) Monitor the implementation and improvement of the telecommunications and ATN applications issues.	2009-2012	States, WGs, CNS/ATM/SG, OACI	Valid
GPIs	GPI/1: flexible use of airspace; GPI/6: air traffic flow management; GPI/7: dynamic and flexible ATS route management; GPI/9: Situational awareness; GPI/14: runway operations; GP1-17: Data Link Application, GPI-21: Navigation Systems and GPI-22: Communications Infrastructure			

12. IMPLEMENTATION OF WGS-84 AND e-TOD

Benefits

Efficiency	• implementation of WGS-84 is a requirement for the performance based navigation, benefits are described in the PBN performance objectives • . support to the approach and departure procedures design • . improve aircraft operating limitations analysis • . support aeronautical chart production and on-board databases (FMS)
Safety	• improve situational awareness • . improve electronic terrain and obstacle data in display cockpit • CFIT reduction • . support technologies such as ground proximity and minimum safe altitude warning systems (GPWS) • observe the benefits described in the PBM performance objectives

Strategy
Short term (2010)
Medium term (2011 - 2015)

ATM Component	TASK DESCRIPTION	START-END	RESPON-SIBLE	STATUS
SDM-CM	***Electronic terrain and obstacle data (eTOD)*** a) Share experience and resources in the implementation of e-TOD through the establishment of an e-TOD Regional working group.	2011-2015	GREPECAS States	Valid
	b) Technical requirements	2010-2015	GREPECAS States	
	c) Report requirements and monitor implementation status of e-TOD using electronic media to ICAO NACC Regional Office.	2010-2011	States	
	d) Develop a high level policy for the management of a national eTOD programme.	2010-2011	States	
AUO	e) Establish WGS-84 implementation goals in coordination with the national PBN implementation.	2010-2012	GREPECAS States	Valid
	f) Technical requirements.	2010-2011	GREPECAS States	
	g) Requirements report and monitor implementation status of WGS-84 using the AIS-5 Table of the FASID and take remedial action if required.	On going	GREPECAS States	
GPIs	GPI-5: Performance-based navigation; GPI-9: Situational awareness; GPI-11: RNP and RNAV SIDs and STARs; GPI-18: Aeronautical Information; GPI-20: WGS-84; GPI-21: Navigation systems			

13. IMPROVE AVAILABILITY OF METEOROLOGICAL INFORMATION

Benefits	
Efficiency	• Assist ATM in tactical decision making for aircraft surveillance, air traffic flow management and flexible and dynamic routing of aircraft • improve aerodrome and air space capacity • improve situational awareness of pilots • reduce unnecessary consumption of fuel and prevent unnecessary delays due to minimal meteorological conditions at the airports • improve planning of flight itineraries
Operational safety	• Increase the number of flights in areas of fair weather conditions and prevent or reduce flights in areas of unfavorable meteorological conditions and volcanic ash clouds • prevent landing operations at aerodromes under minimal meteorological conditions

Strategy
Short Term (2010)

ATM Component	**TASK DESCRIPTION**	**START - END**	**RESPONSIBLE**	**STATUS**
AOM, DCB, AO, TS, AUO	a) Increase and protect facilities to disseminate and Exchange aeronautical meteorological information • i) Increase AFTN, WAFS and internet facilities to disseminate OPMET data at meteorological offices and stations. • .ii) Increase AFTN communications facilities to relay aircraft special reports from the air traffic control units to the meteorological offices • iii) Implement lightning and other protection systems for the AFTN and WAFS facilities used for OPMET exchange • iv) Maintain and expand the number of workstations used to receive meteorological products of the World Area Forecast System	2009 - 2010	States and Territories	Valid
AOM,DCB, AO, TS, AUO	b) Increase availability, timeliness and quality of OPMET data • i) Improve the use of the METAR and TAF codes/templates used to disseminate meteorological reports and aerodrome forecasts • ii) Enhance preparation and availability of SIGMET information on hasardous meteorological conditions and volcanic ash clouds • iii) Enhance the availability of landing forecasts, TREND, considering user (IATA) requirements	2009 - 2010	States and Territories	Valid
AOM, DCB, AO, TS, AUO	c) Establish contingency procedures to disseminate OPMET data, via Internet, in case of failure of the AFTN and WAFS facilities	2009 - 2010	States and Territories ICAO NACC	Valid

AO	d) Improve the quality of data, provided by meteorological sensors, used in meteorological reports • Establish verification and calibration programmes of data provided by meteorological instruments and automated weather systems at the aerodromes	2009 - 2010	States and Territories	Valid
AUO	e) Monitor availability and quality of OPMET data issued by CAR States and Territories and Territories and provide assistance if required	2009 - 2010	States and Territories	Valid
AUO	f) Monitor participation of States and Territories in the International Airways Volcano Watch and provide assistance if necessary	2009 - 2010	ICAO NACC Washington VAAC	Valid
AUO	g) Monitor participation of States and Territories in the International Tropical Cyclone Watch and provide assistance if necessary	2009 - 2010	ICAO NACC Miami TCAC	Valid
AOM, DCB,AO, TS, AUO	h) Establish Quality Assurance Systems provided to the aeronautical users	2010	States and Territories	Valid
AUO	i) Conduct, every year, update seminars and courses on relevant operational aeronautical meteorological matters	2009-2010	States and Territories ICAO NACC, WMO AR IV	Valid
AUO	j) Consider standards and recommendations ICAO and WMO for the training and recruitment of aeronautical meteorological personnel	2009 - 2010	States and Territories	Valid
	Mid Term (2015)			
AUO	k) Establish cost recovery schemes for the aeronautical meteorological services o	2010 - 2015	States and Territories	Valid
AO, TS	l) Increase the number of automated weather systems at the aerodromes o	2010 - 2015	States and Territories	Valid
AO, TS	m) Implement meteorological data downlinks at the MET and ATS units	2012-2015	States and Territories	Valid
AO, TS	n) Implement meteorological data uplinks from the automated weather systems, ATS and meteorological units	2012-2015	States and Territories	Valid
AUO	o) Prepare hourly-monthly climatological tables of the aerodromes for itinerary planning	2010 - 2015	States and Territories	Valid
GPIs	GPI/6 air traffic flow management, GPI/7 flexible/dynamic ATS route management, GPI/9 situational awareness, GPI/14 runway operations, GPI/17 implementation of datalink applications, GPI/18. aeronautical information, GPI 19. Meteorological systems.			

14. IMPROVE SAR SYSTEM				
Benefits				
Efficiency	• enhanced traffic surveillance; • enhanced collaboration between stakeholders; • improved operational efficiency; • improved implementation on a cost-effective basis;			
Safety	• improved safety management.			
Strategy ***Near term (2010)***				
ATM Component	**TASK DESCRIPTION**	**START-END**	**RESPON-SIBLE**	**STATUS**
SDM	a) Develop regional strategy to improve SAR System	End 2009	ICAO	Completed
	b) Identify parties concerned	End 2009	ICAO	Completed
	c) Conduct comprehensive analysis of SAR requirements based on risk assessment and quality assurance principles	2009 - 2010	States, ICAO	Valid
	d) Foster the harmonisation of policies, regulations, practices and procedures of the aeronautical/maritime SAR services, in accordance with ICAO Standards and Recommended Methods.	2009 - 2012	States, ICAO	Valid
	e) Develop, update and ratify SAR agreements with RCCs of adjacent States.	2009 - 2012	States	Valid
	f) Develop, update and ratify SAR agreements with SAR service International agencies.	2009 - 2012	States	Valid
	g) Foster the establishment of joint aeronautical/maritime SAR Committees, including the integration of voluntary SAR organisations, as well as the development of agreements between all the stakeholders of the national SAR service	2009 - 2012	States, ICAO	Valid
	h) Develop a human resources and training planning strategy in line with ICAO SAR guidelines and the regional agreements reached.	2009 - 2012	States, ICAO	Valid
	i) Monitor implementation progress	2009 - 2012	ICAO	Valid
GPIs	GPI/6: air traffic flow management; and GPI/9: Situational awareness;			

ATS Routes Optimisation Action Plan			
1 Airspace Concept	**Start**	**End**	**Remarks**
1.1 Establish and prioritise Strategic Objectives (Safety, Capacity, Environment, etc)			
1.2 Collect air traffic data to understand airspace traffic flows in a particular airspace.			
1.3 Analyse navigation capability of the fleet			
1.4 Analyse communication, ground navigation (VOR, DME) and surveillance for navigation specification and reversionary mode compliance.			
1.5 Optimise the airspace structure, by reorganising the network or implementing new routes based on the strategic objective of the airspace concept. Consider Airspace Modelling, ATC simulations (fast time and/or real time), Live Trials, etc.			
2 Develop Performance Measurement Plan			
2.1 Prepare Performance Measurement Plan, including gas emission, safety, efficiency, etc.			
2.2 Conduct Performance Measurement Plan			
3 Airspace safety assessment			
3.1 Determine which methodology shall be used to evaluate airspace safety and ATS routes spacing, depending on the navigation specification. Consider Airspace Modelling, ATC simulations (fast time and/or real time), Live Trials, etc.			
3.2 Prepare a data collection programme for airspace safety assessment			
3.3 Prepare preliminary airspace safety assessment			
3.4 Prepare final airspace safety assessment			
4 Establish collaboration decision making (CDM) process			
4.1 Coordinate planning and implementation needs with Air Navigation Service Providers, Regulators, Users, aircraft operators and military authorities			
4.2 Establish implementation date			

ATS Routes Optimisation Action Plan			
4.3 Establish the documentation format of CAR/SAM RNAV/RNP Website			
4.4 Report planning and implementation progress to the corresponding Regional Office			
5 ATC Automated Systems			
5.1 Evaluate the PBN implementation in the ATC Automated Systems, considering the Amendment 1 to the PANS/ATM (FPLSG).			
5.2 Implement the necessary changes in the ATC Automated Systems			
6 Aircraft and operators approval			
6.1 Be aware of the national implementation programme and of the required navigation specifications			
6.2 Analyse aircraft approval requirements, aircrew and operator approval requirements for the navigation specifications to be implemented, as contained in the ICAO PBN Manual			
6.3 Publish the national regulations to implement the required ICAO navigation specifications			
6.4 Approval of aircraft and operators for each type of procedure and navigation specification			
6.5 Establish and keep updated a record of approved aircraft and operators			
6.6 Verify operations with a continuing monitoring programme			
7 Standards and Procedures			
7.1 Evaluate regulations for GNSS use, and if such were the case, proceed to its publication.			
7.2 Finalise implementation of WGS-84			
7.3 Develop and publish AIC notifying PBN implementation planning			
7.4 Publish AIP Supplement including applicable standards and procedures			
7.5 Review Procedural Manuals of the ATS units involved			
7.6 Update Letters of Agreement between ATS units			

ATS Routes Optimisation Action Plan				
7.7	Develop amendment to the regional documentation, if necessary			
7.8	Provide procedures to accommodate non-approved RNAV/RNP aircraft, when applicable			
7.9	Identify transition areas and procedures, if necessary			
7.10	Conduct ATC simulations to identify the workload/operational factors, if necessary, and report the simulations activities to the ATM Committee			
8	**Training**			
8.1	Develop a training programme and documentation for operators (pilots, dispatchers and maintenance)			
8.2	Develop training programme and documentation for Air Traffic Controllers and AIS Operators			
8.3	Develop training programme to regulators (aviation safety inspectors)			
8.4	Conduct training programmes			
8.5	Hold seminars oriented to operators, indicating the plans and the operational and financial benefits expected			
9	**Decision for implementation**			
9.1	Evaluate operational documentation availability (ATS, OPS/AIR)			
9.2	Evaluate the percentage of approved aircraft and operations (mixed equipage concerns)			
9.3	Review safety assessment results			
10	**System Performance Monitoring**			
10.1	Develop post-implementation en-route operations monitoring programme			
10.2	Execute post-implementation en-route operations monitoring programme			
Pre operational implementation date				

ATS Routes Optimisation Action Plan			
Definitive implementation date			

PBN TMA and Approach Action Plan			
1 Airspace Concept	**Start**	**End**	**Remarks**
1.1 Establish and prioritise Strategic Objectives (Safety, Capacity, Environment, etc)			
1.2 Collect air traffic data to understand airspace traffic flows in the TMA.			
1.3 Analyse aircraft fleet navigation capacity operating in the TMA			
1.4 Analyse communication, ground navigation (VOR, DME) and surveillance for navigation specification and reversionary mode compliance			
1.5 Optimise the airspace structure, by implementing new SID and STARS, based on the strategic objective of the airspace concept. Consider Airspace Modelling, ATC simulations (fast time and/or real time), Live Trials, etc.			
2. Develop Performance Measurement Plan			
2.1 Prepare Performance Measurement Plan, including gas emission, safety, efficiency, etc.			
2.2 Conduct Performance Measurement Plan			
3 Airspace safety assessment			
3.1 Determine which methodology shall be used to evaluate airspace safety and routes spacing, depending on the navigation specification. Consider Airspace Modelling, ATC simulations (fast time and/or real time), Live Trials, etc.			
3.2 Prepare a data collection programme for airspace safety assessment			
3.3 Prepare preliminary airspace safety assessment			
3.4 Prepare final airspace safety assessment			
4 Establish collaboration decision making (CDM) process			
4.1 Coordinate planning and implementation needs with Air Navigation Service Providers, Regulators, Users, aircraft operators and military authorities			
4.2 Establish implementation date			
4.3 Establish the documentation format of CAR/SAM RNAV/RNP Website			
4.4 Report planning and implementation progress to the corresponding Regional Office			

PBN TMA and Approach Action Plan			
5 ATC Automated Systems			
5.1 Evaluate the PBN implementation in the ATC Automated Systems, considering the Amendment 1 to the PANS/ATM (FPLSG).			
5.2 Implement the necessary changes in the ATC Automated Systems			
6 Aircraft and operator approval			
6.1 Be aware of the national implementation programme and of the required navigation specifications			
6.2 Analyse aircraft approval requirements, aircrew and operator approval requirements for the navigation specifications to be implemented, as contained in the ICAO PBN Manual			
6.3 Publish the national regulations to implement the required ICAO navigation specifications			
6.4 Approval of aircraft and operators for each type of procedure and navigation specification			
6.5 Establish and keep updated a record of approved aircraft and operators			
6.6 Verify operations with a continuing monitoring programme			
7 Standards and Procedures			
7.1 Evaluate regulations for GNSS use, and if such were the case, proceed to its publication.			
7.2 Develop and publish AIC notifying PBN implementation planning			
7.3 Publish AIP Supplement including applicable standards and procedures			
7.4 Review Procedural Manuals of the ATS units involved			
7.5 SID and/or STAR Ground Validation and Flight Inspection/Flight Validation			
7.6 Data Base Validation Requirements/Procedures			
7.5 Update Letters of Agreement between ATS units			
7.6 Provide procedures to accommodate non-approved RNAV/RNP aircraft, when applicable			

PBN TMA and Approach Action Plan			
7.7 Conduct ATC simulations to identify the workload/operational factors, if necessary.			
8 Training			
8.1 Develop a training programme and documentation for operators (pilots, dispatchers and maintenance)			
8.2 Develop training programme and documentation for Air Traffic Controllers and AIS Operators			
8.3 Develop training programme to regulators (aviation safety inspectors)			
8.4 Conduct training programmes			
8.5 Hold seminars oriented to operators, indicating the plans and the operational and financial benefits expected			
9 Decision for implementation			
9.1 Evaluate operational documentation availability (ATS, OPS/AIR)			
9.2 Evaluate the percentage of approved aircraft and operations (mixed equipage concerns)			
9.3 Review safety assessment results			
10 System Performance Monitoring			
10.1 Develop post-implementation TMA operations monitoring programme			
10.2 Execute post-implementation TMA operations monitoring programme			
Pre operational implementation date			
Definitive implementation date			

PBN RNP APP Action Plan			
1 Airspace Concept	**Start**	**End**	**Remarks**
1.1 Establish and prioritise Strategic Objectives (Safety, Capacity, Environment, etc)			
1.2 Analyse aircraft fleet navigation capacity operating in the Airport			
1.3 Analyse communication, ground navigation (VOR, DME) and surveillance for navigation specification and reversionary mode compliance			
1.4 Design Instrument Approach Procedure (RNP APCH/APV Baro-VNAV or RNP AR), based on the strategic objective of the airspace concept. Consider Airspace Modelling, ATC simulations (fast time and/or real time), Live Trials, etc.			
2 Develop Performance Measurement Plan			
2.1 Prepare Performance Measurement Plan, including gas emission, safety, efficiency, etc.			
2.2 Conduct Performance Measurement Plan			
3 Procedure safety assessment			
3.1 Determine which methodology shall be used to evaluate procedure safety, depending on the navigation specification. Consider Airspace Modelling, ATC simulations (fast time and/or real time), Live Trials, etc.			
3.2 Prepare a data collection programme for airspace safety assessment			
3.3 Prepare preliminary procedure (s) safety assessment			
3.4 Prepare final procedure (s) safety assessment			
4 Establish collaboration decision making (CDM) process			
4.1 Coordinate planning and implementation needs with Air Navigation Service Providers, Regulators, Users, aircraft operators and military authorities			
4.2 Establish implementation date			
4.3 Establish the documentation format of CAR/SAM RNAV/RNP Website			
4.4 Report planning and implementation progress to the corresponding Regional Office			

PBN RNP APP Action Plan			
5 ATC Automated Systems			
5.1 Evaluate the PBN implementation in the ATC Automated Systems, considering the Amendment 1 to the PANS/ATM (FPLSG).			
5.2 Implement the necessary changes in the ATC Automated Systems			
6 Aircraft and operator approval			
6.1 Be aware of the national implementation programme and of the required navigation specifications			
6.2 Analyse aircraft approval requirements, aircrew and operator approval requirements for the navigation specifications to be implemented, as contained in the ICAO PBN Manual			
6.3 Publish the national regulations to implement the required ICAO navigation specifications			
6.4 Approval of aircraft and operators for each type of procedure and navigation specification			
6.5 Establish and keep updated a record of approved aircraft and operators			
6.6 Verify operations with a continuing monitoring programme			
7 Standards and procedures			
7.1 Evaluate regulations for GNSS use, and if such were the case, proceed to its publication.			
7.2 Develop and publish AIC notifying PBN implementation planning			
7.3 Publish AIP Supplement including applicable standards and procedures			
7.4 Review Procedural Manuals of the ATS units involved			
7.5 Update Letters of Agreement between ATS units, if necessary			
7.6 Provide procedures to accommodate non-approved RNAV/RNP aircraft, when applicable			
7.7 Conduct ATC simulations to identify the workload/operational factors, if necessary.			

PBN RNP APP Action Plan			
8 Training			
8.1 Develop a training programme and documentation for operators (pilots, dispatchers and maintenance)			
8.2 Develop training programme and documentation for Air Traffic Controllers and AIS Operators			
8.3 Develop training programme to regulators (aviation safety inspectors)			
8.4 Conduct training programmes			
8.5 Hold seminars oriented to operators, indicating the plans and the operational and financial benefits expected			
9 Decision for implementation			
9.1 Evaluate operational documentation availability (ATS, OPS/AIR)			
9.2 Evaluate the percentage of approved aircraft and operations (mixed equipage concerns)			
9.3 Review safety assessment results			
10 System Performance Monitoring			
10.1 Develop post-implementation APP operations monitoring programme			
10.2 Execute post-implementation APP operations monitoring programme			
Pre operational implementation date			
Definitive implementation date			

2009-2014
FOLLOW-UP AND IMPLEMENTATION ACTION PLAN
AIR-GROUND AND GROUND-GROUND COMMUNICATIONS

No.	Performance Objective Task	Action Description	Responsible	Begin date	End date	Deliverables	Observations
1	2	3	4	5	6	7	8
1	11 a), 11 b)	Improve VHF and HF/AMS (R) coverages and mitigate deficiencies	States/ Territories and COCESNA coordinated by C/CAR/WG	July 2009	Dec 2009	•Deficiencies Identification and • Corresponding corrective action plan	References to CNS tables 2A and 2B
2	11 a), 11 b)	Improve AFTN communications and ATS direct communications and mitigate deficiencies	States/ Territories and COCESNA coordinated by C/CAR/WG	July 2009	Dec 2009	•Deficiencies Identification and • Corresponding corrective action plan	References to CNS tables 1A and 1C
3	1 b)	Evaluation of required communication infrastructure to satisfy the navigation requirements based on PBN.	States/ Territories and COCESNA coordinated by C/CAR/WG	July 2009	Dec 2010	Analysis of communication infrastructure	
4	7 l)	Adoption of an "equipment modernisation/DATIS Service implementation plan for international airports" in compliance to the ATM requirements.	States/ Territories and COCESNA coordinated by C/CAR/WG	July 2009	Dec 2012	DATIS Modernisation and Implementation Plan	
5	11 c)	Elaborate Air-ground datalink progressive execution Plan based on CAR/SAM Activities Plan and Datalink implementation programme (Appendix AW and AX of Agenda 3 of GREPECAS/13).	CNS/ATM/SG (ATN TF)	June2009.	Dec 2010	Initial Transition Plan for ATN Air-ground applications	References to CNS table 1Bc
6	11 c)	Elaborate ATN AIDC Implementation Plan	CNS/ATM/SG (ATN TF)	June2009.	Dec 2010	Initial Transition Plan for ATN ground-ground Applications (AIDC)	
7	11 c)	Update the ATN Routers Regional Plan	CNS/ATM/SG (ATN TF)	June2009.	June 2010	CNS Table 1Ba Updated proposal	References to CNS table 1Ba
8	11 d)	Preliminary review of ATN Routers Regional Plan	States/ Territories and COCESNA coordinated by C/CAR/WG	July 2009	Dec 2009	Comments to current version of CNS Table 1Ba	References to CNS table 1Ba
9	11 d)	Evaluation of AMHS CAAS addresses proposal	States/ Territories and COCESNA coordinated by C/CAR/WG	July 2009	Oct 2009	Comments to AMHS CAAS addresses proposal	CAR AMHS CAAS Addresses Proposal
10	11 d)	Technical evaluation of communications and interfaces for AIDC implementation over the AFTN.	States/ Territories and COCESNA coordinated by C/CAR/WG	July 2009	June 2010	Technical recommendations for AIDC implementation over the AFTN	
		Perform activities for the implementation of the ATN and its applications according to the CAR/SAM Regional strategy for the implementation of the ATN and its applications.					

No.	Performance Objective Task	Action Description	Responsible	Begin date	End date	Deliverables	Observations
1	2	3	4	5	6	7	8
		(Appendix BA of Agenda 3 of GREPECAS/13 Report).:					
11	11 d)	i. Perform AMHS operation trials	USA, Dominican Republic, COCESNA, Jamaica	Oct 2009	Jul 2010	Trial results	
12	11 e), 7c)	ii. Evaluation of regional networks to support ATN Applications	MEVA TMG	Jul 2009	May 2010	Trial results	
13	11 d)	iii. Update of Regional Plan for ATN ground-ground applications	States/ Territories and COCESNA coordinated by C/CAR/WG	Julio 2009	June 2010	Updates to Regional Plan for ATN ground-ground applications	References to CNS table 1Bb
14	11 e)	iv. Review of CAR/SAM Regional Program for the implementation of the air – ground data links	States/ Territories and COCESNA coordinated by C/CAR/WG	July 2009	Nov 2009	Comments to this Regional Program	Reference: CAR/SAM Regional Program for the implementation of the air – ground data links
15	11 e), 11 g)	v. A-G Applications trial Plans	States/ Territories and COCESNA coordinated by C/CAR/WG	July 2009	Nov 2010	Trial Plans for A-G Applications	
16	11 d), 11 e)	vi. Participate on training seminars and events	States/ Territories and international organisations	July 2009	Nov 2011	Participation on events	
17	11 a), 11 b)	MEVA II REDDIG Networks Interconnection	COCESNA, Jamaica, Netherland Antilles	July 2009	Oct 2009	MEVA II/ REDDIG Networks Interconnection	
18	11 a), 11 b)	MEVA II – REDDIG Integration	MEVA TMG	July 2009	2014	Study to accomplish integration	
19	11 c)	Procure the application of management and coordination of frequency assignments and the implementation of tools for this goal.	ICAO	Jul 2009	Dec 2010	Frequency Management and coordination tools	
20	11 c)	Implement management and coordination of frequencies with ICAO	States/ Territories and COCESNA coordinated by C/CAR/WG	Jul 2009	Dec 2009	Comments to ICAO reviewed frequency assignment lists	
21	11 c)	Comments to management frequency tools provided by ICAO	Dominican Republic, COCESNA, Jamaica,	Sep 2009	Dec 2009	Comments and evaluation of tools	
22	10 a)	Promote and coordinate diffusion of ICAO position for WRC-2012	ICAO	Jul 2009	Dec 2011	Promote ICAO position	
23	10 b), 10 e)	Participate and coordinate with their national spectrum regulation entities the support to ICAO position for the WRC-2012	States/ Territories and COCESNA coordinated by C/CAR/WG	Jul 2009	Dec 2011	Support ICAO position in WRC-2012 related meetings	

2009-2014
FOLLOW-UP AND IMPLEMENTATION ACTION PLAN
NAVIGATION SYSTEMS

No.	Performance Objective Task	Action Description	Responsible	Begin date	End date	Deliverables	Observations
1	2	3	4	5	6	7	8
1	1 b)	Evaluation of required navigation infrastructure to satisfy the PBN based navigation requirements, identifying improvements and deficiencies	States/ Territories and COCESNA coordinated by C/CAR/WG	July 2009	Dec 2010	1. Analysis of required navigation infrastructure for example: DME-DME coverages for selected ATS routes for RNAV 5 2. Identification of deficiencies 3. Corresponding corrective Action plan	Reference to CNS table 3
2	1 b), 2c), 3 b)	Development of a regional strategy for the implementation of navigation systems	CNS/ATM/SG	Sep 2009	Dec 2009	Regional Strategy for Navigation Systems	Navigation Infrastructure alternatives for PBN
3	1 b), 2c), 3 b)	Develop recommendations for training in GNSS elements	CNS/ATM/SG	Sep 2009	Dec 2009	recommendations for training in GNSS elements	Navigation Infrastructure alternatives for PBN
4	1 b), 2c), 3 b)	Plans on GNSS systems (SBAS y GBAS) and trial conduction.	States/ Territories and COCESNA coordinated by C/CAR/WG	July 2009	Dec 2014	GNSS trial plan	Navigation Infrastructure alternatives for PBN

2009-2011
FOLLOW-UP AND IMPLEMENTATION ACTION PLAN
SURVEILLANCE SYSTEMS

No.	Performance Objective Task	Action Description	Responsible	Begin date	End date	Deliverables	Observations
1	2	3	4	5	6	7	8
1	7 e)	Evaluation of radar coverage and identification of improvements to satisfy operative requirements.	States/ Territories and COCESNA coordinated by C/CAR/WG	July 2009	Dec 2009	•Identification of improvements and • Respective Action Plan	Reference to CNS table 4A
2	7 e)	Radar Data Sharing implementation	Cuba, Jamaica, Netherland Antilles, Haiti, Cayman Islands, USA	July 2009	Dec 2010	Agreements and implementation of radar data sharing	
3	1 b)	Evaluation of surveillance infrastructure to satisfy navigation requirements for PBN	States/ Territories and COCESNA coordinated by C/CAR/WG	July 2009	Dec 2010	Analysis of surveillance infrastructure	
4	7 k)	Implementation of 24 bits Address registry	States/ Territories and COCESNA coordinated by C/CAR/WG	July 2009	Dec 2010	24 bits Address registry	
5	11 g), 7 k)	ADS-B, ADS-C and MLAT trials	States/ Territories and COCESNA coordinated by C/CAR/WG	July 2009	Dec 2010	Trials on ADS-B, MLAT and ADS-C	
6	7e), 7 k)	*Development of a regional strategy for surveillance systems*	CNS/ATM/SG	July 2009	Oct 2009	Regional Strategy for Surveillance Systems	
7	7 k)	Mode S radar implementation and update to Regional Plan on Surveillance Systems	States/ Territories and COCESNA coordinated by C/CAR/WG	July 2009	Dec 2011	Information on Mode S Radar implementation and updates to Regional Plan	Reference to CNS table 4A

GUIDANCE FOR IMPLEMENTATION OF FLIGHT PLAN INFORMATION TO SUPPORT AMENDMENT 1 TO PANS-ATM, DOC 4444, FIFTEENTH EDITION

1. INTRODUCTION

1.1. The guidance contained herein is provided to assist airspace users and Air Navigation Service Providers (ANSP) implement the flight planning changes incorporated by Amendment 1 to Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM, Doc 4444) Fifteenth Edition.

1.2. This guidance do not change any provision in Annex 2 or PANS-ATM regarding completion and acceptance of a flight plan.

1.3. The changes were announced by ICAO on the 25 June 2008 in State Letter 50/2008 and will become applicable on 15 November 2012.

1.4. The changes have considerable consequences on ANSP flight data processing systems. Changes are required to ANSP flight data processing systems that check and accept flight plans and related messages, use flight plan data in displays for controller reference, use data in ANSP automation and affect information that is communicated between ANSPs as the flight progresses. Preparation for the changes should therefore be made well in advance of 15 November 2012.

1.5. The changes also have consequences for airspace users. If a flight plan with new content is sent to an ANSP that has not yet changed to accept the new content then it is likely that some information will be lost, misinterpreted or cause a rejection of the flight plan.

1.6. No start date has been given for implementation of the changes to commence, however one reason for the ICAO State Letter on 25 June 2008 was to allow recipients "to begin updating your flight plan data processing systems". The transition period for the changes is therefore from 25 June 2008 until 15 November 2012.

1.7. It is recognised that changes will be implemented by airspace users and ANSPs on individual schedules due to individual needs, however some coordination will occur.

1.8. It is essential to the success of this implementation that all airspace users and ANSPs be able to submit and process flight information in accordance with Amendment 1 to PANS-ATM (Doc 4444) Fifteenth Edition by 15 November 2012, as processing via present methods is not assured after that date.

2. OBJECTIVE

2.1. The purpose of the guidance contained herein is to support a coordinated global effort during the transition period so that a successful transition is achieved by the applicable date of 15 November 2012.

3. APPLICABILITY

3.1. This guidance applies to airspace users, ANSPs, Planning and Implementation Regional Groups (PIRG). Note that flight planning services and related organisations involved in the processing of flight plans are considered part of the airspace user community and, as such, are covered under this guidance.

3.2. This document presents guidelines which should be considered when developing implementation plans for this Amendment. Adherence to these guidelines will mitigate risks associated with the technical challenges inherent during the transition period and assure that users are able to meet flight planning requirements as individual ANSPs implement changes.

3.3. This document applies with immediate effect and continues until the complete implementation of Amendment 1 to PANS-ATM Fifteenth Edition.

4. SCOPE

4.1. This guidance is limited to transitioning to flight planning and Air Traffic Services (ATS) message changes defined in Amendment 1 to PANS-ATM Fifteenth Edition, including message content and submission instructions.

5. FLIGHT PLANNING ENVIRONMENT

5.1. In order to allow performance case considerations to drive individual airspace user and ANSP implementation schedules, the ATM system will need to simultaneously support both present and new flight plan information and content for a period of time.

5.2. Amendment 1 to PANS-ATM Fifteenth Edition contains changes to length and content of items. The changes to content are:

- Change the way aircraft equipage and capabilities are communicated to provide more detail;
- Provide additional means of describing route way points (specifically bearing and distance from points other than navigation aids); and,
- Permit specification of the date of flight in a standardised manner.

5.3. The existing flight planning environment supports a variety of means of filing flight plans. For example flight plans can be filed directly by the airspace user to each ANSP individually or flight plans can be filed by the airspace user at one location and then the ATM system distributes the flight plan. Amendment 1 does not specifically change these options; however the means of transitioning to Amendment 1 may impose some requirements during the transition.

5.4. The existing ATM system supports a variety of means of ANSPs communicating flight plan data between ANSP systems, for example use of coordination messages where Amendment 1 implies changes of content.

6. IMPLEMENTATION GUIDELINES

6.1. PRESENT is defined as the present flight planning and ATS message formats as defined in the current version of PANS-ATM (Doc 4444) Fifteenth Edition.

6.2. NEW is defined as the flight planning and ATS message formats as specified in Amendment 1 to PANS-ATM (Doc 4444) Fifteenth Edition.

6.3. The transition period is from 25 June 2008 until the applicability date of 15 November 2012.

6.4. These guidelines have been developed to facilitate concurrent use of both PRESENT and NEW formats by airspace user and ANSP flight data processing systems during the transition period.

6.5. **Guideline 1**: As each ANSP transitions to NEW content, it is essential that they also support present content until the applicability date of 15 November 2012.

6.5.1. There is no requirement for ANSPs to accept and process PRESENT after the applicability date, unless specified by the appropriate authority.

6.5.2. This guideline relates directly to the transition environment in which a segment of airspace users (and ANSPs) do not amend their flight planning systems until the end of the transition period.

6.6. **Guideline 2**: PIRGs are encouraged to plan and publish regional implementations sufficiently in advance of the applicability date so that airspace users and ANSPs can respond to and resolve any unforeseen operational issues.

6.6.1. It is anticipated that implementation will occur progressively as each PIRG works with their member States/International Organisations and airspace users to coordinate a regional transition prior to 15 November 2012.

6.6.2. Transition plans should encourage all ANSPs transition to NEW a period of time before 15 November 2012 to allow airspace users a transition period to NEW before the applicability date.

6.6.3. Transition plans should take into account that the airspace user may not be able to make use of the new opportunities provided by NEW content until an ANSP has transitioned. Even then, use of NEW content may be restricted in its application if the flight still involves ANSPs who have not transitioned.

6.7. **Guideline 3**: During the transition period and after an ANSP has advised that they can accept NEW flight plans, the determination to file NEW content or PRESENT content with that ANSP is the choice of the airspace user.

6.7.1. It is expected that airspace users will make the decision on what format to file based on performance gains which may be achieved through capability information in Items 10 and/or 18 of the NEW flight plan form.

6.7.2. It is intended that all airspace users will file NEW from the applicability date forward, as using PRESENT is not assured after that date.

Note: The following guidelines apply only to situations where ANSPs affected by a flight have not all transitioned to NEW.

6.8. **Guideline 4**: During the transition period when not all ANSPs affected by a flight have transitioned to NEW, the airspace user must ensure that PRESENT flight plan information is filed with ANSPs who have not transitioned.

6.8.1. This can be achieved by the airspace user filing only PRESENT information with all ANSPs (as ANSPs supporting NEW will also support PRESENT during transition).

6.8.2. ANSPs using PRESENT may misinterpret, and may reject, flight plan information that is filed more than 24 hours in advance of flight. Filing more than 24 hours in advance of flight cannot be used if one or more ANSPs affected by a flight have not transitioned (unless those ANSPs already support filing more than 24 hours in advance of flight). Although ANSPs using NEW could accept the flight plan they may not be able to pass essential coordination to ANSPs using PRESENT.

6.8.3. The airspace user may choose to file NEW to ANSPs that have transitioned and PRESENT to ANSPs that have not transitioned. However without special transitional procedures, a situation can occur where the NEW information would only be useable until the first ANSP along route of flight using PRESENT. This is because the ANSP using NEW will not be able to coordinate NEW information with ANSPs using PRESENT.

6.9. **Guideline 5**: To facilitate user decisions on whether to file PRESENT, NEW or a combination of PRESENT/NEW, ICAO will maintain a repository of information on the ICAO website regarding the ability of each ANSP to accept PRESENT or NEW.

6.9.1. This information which will be publicly available is in addition to the normal methods of communication between an ANSP and its airspace users.

6.9.2. Each ANSP will communicate, via State and ICAO Regional Offices, their ability to accept NEW to ICAO as soon as possible so that ICAO can ensure that complete and updated information is posted. An ANSP advising NEW will mean that they can not only receive and process the new information but also coordinate with other ANSPs who have transitioned to NEW.

6.10. **Guideline 6**: During the transition period, ANSPs who accept NEW may need to convert flight information to PRESENT format for coordination with adjacent ANSPs who have not transitioned.

6.10.1. It is strongly suggested for consistency that all ANSPs utilise the conversion table provided below so airspace users and ANSPs have a common understanding of how NEW will be converted to PRESENT.

6.10.2. PIRGSs, States and ANSPs should be aware that valuable planning information may be lost during the conversion process, as shown in the conversion table.

6.10.3. There is no intent for PRESENT to be converted to NEW during the transition period.

CONVERSION OF NEW ITEMS 10 AND 18 TO PRESENT

It is strongly suggested that all ANSPs utilise the table below to convert NEW flight information in Items 10 and 18 to the PRESENT format for coordination with adjacent ANSPs which only accept PRESENT.

- Modified agreements may be worked between ANSPs for Item 18 information if the conversion would cause the message to be rejected by an ANSP which only accepts PRESENT.

- CAUTION: Some capability information will be lost during conversion.

	NEW data in these columns		Converts to PRESENT data in these columns	
	Item 10	**Item 18**	**Item 10**	**Item 18**
Com-Nav	N		N	
	S		VOL	
	SF		S	
	A		Z	NAV/GBAS
	B		Z	NAV/LPV
	C		C	
	D		D	
	E1		J	DAT/
	E2		J	DAT/
	E3		J	DAT/
	F		F	
	G	NAV/	G	
	H		H	
	I		I	
	J1		J	DAT/V
	J2		J	DAT/H
	J3		J	DAT/V
	J4		J	DAT/V
	J5		J	DAT/S
	J6		J	DAT/S
	J7		J	DAT/S
	K		K	
	L		L	
	M1		Z	COM/INMARSAT
	M2		Z	COM/MTSAT
	M3		Z	COM/IRIDIUM
	O		O	
	P1-P9 (Reserved)			
	R	PBN/	R	
	T		T	
	U		U	
	V		V	

Com-Nav	**NEW** data in these columns		Converts to **PRESENT** data in these columns	
	Item 10	**Item 18**	**Item 10**	**Item 18**
	W		When prescribed by ATS	
	X		When prescribed by ATS	
	Y		When prescribed by ATS	
	Z	COM/NAV/DAT	Z	COM/ NAV
Surveillance	N		N	
	A		A	
	C		C	
	E			
	H		S	
	I		I	
	L		S	
	P		P	
	S		S	
	X		X	
	B1			
	B2			
	U1			
	U2			
	V1			
	V2			
	D1		D	
	G1		D	

APPENDIX D

ICAO Technical Co-operation Project (RLA/09/801) for the CAR Region
Performance-based air navigation systems implementation

ICAO PLANNING PHASE

PHASE I – Timescale

PROJECT/TASK	MILESTONE
1. Initial presentation of the TC project	August 2008 – Completed
2. NACC/DCA/3 endorsement of the NAM/CAR Regional Implementation Plan and Technical Cooperation Project for the CAR Region	September 2008 – Completed
3. Adoption of performance framework by GREPECAS/15	October 2008 – Completed
4. Project Document Revision	March 2009 – Completed
5. Project Objectives Review	May 2009 – Completed
6. Conduct of performance framework workshop	July 2009 – Completed
7. Repositioning of TC project	August – October 2009 Ongoing
8. Conduct of Business case workshop	28 September - 2 October 2009
9. Send repositioned draft TC project document along with proposed timelines, work plan, schedule, budget and mechanism for financial contributions to all CAR States for review and comment	30 October 2009
10. CAR Regional Project Steering Committee Meeting	January 2010
11. Develop and send final performance based TC project document to States for their participation	28 February 2010
12. States confirm participation in the project	31 March 2010
13. Deposit of initial funds by States	30 April 2010
14. Project Commencement	1 May 2010
15. Establishment of an on-line host infrastructure in the ICAO NACC Regional office to facilitate project monitoring along with supporting electronic air navigation planning tools.	30 June 2010

ICAO Technical Cooperation Project (RLA/09/801) for the CAR Region
Performance-based air navigation systems implementation

STATES PLANNING AND IMPLEMENTATION PHASE

PHASE II – Timescale

PROJECT/TASK	MILESTONE
1. Develop operational scenario: - current traffic density - traffic forecast 2020 - deficiencies and metrics - gap analysis	Determine the appropriate Strategic Operational Improvement/national performance objective July 2010
2. Analysis of airspace concept and determining requirements: It calls for multidisciplinary team and includes factors such as airspace organisation and management, assessing existing fleet capability and available CNS infrastructure, listing airworthiness and operational approvals etc.	Formulation of airspace concept and finalising the requirements October 2010
3. a) Identification of enablers in the field of ATM/CNS/AIM/MET/AGA through technical audit and economic analysis using GANP (for SOIs 1 to 4) b) Identification systems and procedures through GASP analysis (for SOI 5)	Determination of projects that meets SOIs 1 to 5 February 2011 February 2011
4. Agreement by States for an implementation plan	April 2011
5. Deposit of funds by States	May 2011
6. Procurement /installation/ Commissioning of air navigation systems/procedures	May 2013
7. Completion report of the CAR project	June 2013 (tentative to be determined on the basis of the final project still to be defined)

Agenda Item 7: Regional and Technical Co-operation Matters

7.1 ICAO Cooperative Arrangement for the Prevention of Spread of Communicable Disease through Air Travel (CAPSCA) – Americas Project (RLA/08/901)

7.1.1 The Secretariat presented WP/15 on the ICAO Cooperative Arrangement for the Prevention of Spread of Communicable Disease through Air Travel (CAPSCA) – Americas Project, which was launched in April 2009. The paper also provided the results of the First Steering Committee Meeting held at the ICAO NACC Regional Office in Mexico City on 25 and 26 June 2009, which approved the Project's organisation, steering committee and work plan.

7.1.2 The Meeting was informed that the ICAO CAPSCA-Americas Project objectives are as follows:

- Public Health Protection – aviation personnel, air travellers and general public.
- States establish national aviation pandemic preparedness plans, involving civil aviation authorities, air traffic services, airports, airlines and public health authorities, and thereby satisfying:
  - adherence to Article 14 of the Convention on International Civil Aviation;
  - compliance with related ICAO SARPs (Annexes 6, 9, 11 and 14); and
  - implementation of ICAO, ACI and IATA guidelines and WHO IHR (2005) regulations.
- Regional cooperation among States and Territories – the Project provides a mechanism for pooling and sharing expertise and resources.
- Provision of advice, personnel training and airport evaluations for States.
- Further development and improvement of guidelines for the aviation sector.

7.1.3 A grant of approximately USD $400,000 from the UN Central Fund for Influenza Action (CFIA) has been allocated to ICAO for the CAPSCA-Americas Project. The purpose of this contribution is to meet the costs of the activities to be conducted during the first phase of implementation of the project for an expected duration of 24 months. No financial contributions are required from States and Territories for the first phase of the project. However, State contributions during the initial phase of the project are required in the form of in-kind loans of personnel who will be trained and periodically undertake airport evaluation missions to participating member States and Territories.

7.1.4 C/CAR States and Territories were encouraged to join the ICAO CAPSCA-Americas Project to receive the assistance that the project offers to States and Territories in order for them to meet their international aviation, health and social obligations by improving their preparedness for a future pandemic or more severe development of the influenza A(H1N1) pandemic being experienced in 2009. In this regard, the Meeting was informed that Brazil, Cuba, El Salvador, Mexico, Nicaragua, Panama, Peru and Venezuela have confirmed participation in the project. In addition, Peru nominated an expert to the Regional Aviation Medicine Team (RAMT) and volunteered its airports for evaluation. The ICAO NACC Regional Office sent a letter to States/Territories on 7 August 2009, attaching the Project Document and reiterating the invitation to participate in the project.

7.1.5 C/CAR States and Territories are also encouraged to nominate experts to join the Regional Aviation Medicine Team (RAMT) and attend the first RAMT meeting, training and airport evaluation, which is scheduled in the ICAO South American Regional Office and Jorge Chavez International Airport in Lima, Peru, during the first week of December 2009.

7.1.6 As a result of the discussion under this agenda item, the Meeting decided to adopt the following conclusion:

CONCLUSION 10/10 ICAO COOPERATIVE ARRANGEMENT FOR THE PREVENTION OF SPREAD OF COMMUNICABLE DISEASE THROUGH AIR TRAVEL (CAPSCA) – AMERICAS PROJECT

That C/CAR States and Territories are encouraged to:

a) prepare, test and update aviation pandemic preparedness plans in collaboration with public health authorities by 30 November 2009;

b) become participating members of the ICAO CAPSCA-Americas Project by informing the ICAO NACC Regional Office by 30 September 2009;

c) nominate experts to join the ICAO CAPSCA-Americas Regional Aviation Medicine Team (RAMT) who will be trained by ICAO and undertake airport evaluations at international airports of States and Territories, which are participating in the project, and inform the ICAO NACC Regional Office by 31 October 2009;

d) enable the RAMT experts to attend the first RAMT meeting, training and airport evaluation planned to be conducted in Lima, Peru, during the first week of December 2009; and

e) volunteer international airports to be evaluated by the ICAO CAPSCA-Americas Project and inform the ICAO NACC Regional Office by 31 December 2009.

7.1.7 The Secretariat presented IP/13, which informed the Meeting of the ICAO Council Declaration on the Influenza A(H1N1) Outbreak of 2009, regarding ICAO actions for pandemic contingency plans for the aviation sector, and in particular in relation to there being neither rationale nor WHO or ICAO recommendations for air travel restrictions.

7.1.8 In addition, the Secretariat presented IP/14, which encouraged a harmonised response to the Influenza A(H1N1) Outbreak of 2009 through the consistent implementation of Annex 9 provisions for the reporting procedure by pilots-in-command of a suspected case of communicable disease and completion of the General Declaration – Health Part and Passenger Locator Card.

7.2 Other Cooperation Matters

ICAO Regional Technical Cooperation Project RLA/03/902 –Transition to GNSS in the CAR/SAM Regions – Augmentation Solution for the Caribbean, Central and South America (SACCSA)

7.2.1 The Secretariat presented WP/23 on the objectives and expected results of Phase III of the RLA/03/902 Project regarding the augmentation solution for GNSS implementation in the CAR/SAM regions. The Meeting recalled that Phase I of the SACCSA Project concluded that it was not technically feasible to extend the existing WAAS (US) and EGNOS (Europe) to the CAR/SAM regions. Consequently, Phase II of the SACCSA Project defined a separate regional SBAS solution and identified its requirements.

7.2.2 The GREPECAS/15 Meeting, through its Conclusion 15/43 – *Support for RLA/03/902 Project – SACCSA,* noted the progress of the Project as well as the proposed way forward. The next phase (Phase III) of the RLA/03/902 Project - *Augmentation Solution for the Caribbean, Central and South America (SACCSA)* aims to conclude Phase II studies and perform functional demonstrations of prototype algorithms over the designed SBAS for these regions so as to determine the feasibility of the implementation of its own SBAS. Furthermore, Phase III will undertake studies of ionospheric effects on GNSS signals, particularly in low latitude areas. As part of these efforts, the Project fosters the publishing and sharing of results, experiences and training. At the end of Phase III, the Project will recommend an augmentation solution that will be technically feasible, operationally suitable and economically viable for the CAR/SAM Regions. With these outcomes, the Project will provide a solid basis for decision-making by the States of the CAR/SAM Regions for a SBAS solution to augment GNSS implementation for all phases of flight.

7.2.3 The RLA/03/902 Project RCC/E Meeting held in Costa Rica on 24 April 2009, confirmed the plan to execute Phase III in two parts (Phase III-A and Phase III-B) as summarised in the **Appendix** to this part of the Report. It was also agreed to launch Phase III-A scheduled activities through an open international tender process in accordance with procedures established by ICAO and applied by its Technical Cooperation Bureau.

7.2.4 The current members of the Project are Bolivia, Colombia, Costa Rica, Guatemala, Panamá, Venezuela, Spain and COCESNA. At the RCC/E Meeting, Dominican Republic had also announced its intention to join the RLA/03/902 Project. Other CAR/SAM States have informed their interest in the Project outcomes to ICAO.

7.2.5 The annual contribution for each member State/Territory/international organisation, which was agreed by the RCC/E Meeting for the RLA/03/902 Project Phase III-A, is USD $25,000.

7.2.6 Cuba informed the Meeting of the position it had taken during the GREPECAS/15 Meeting and by letter to ICAO in response to the follow-up of Conclusion 15/43, that it will not participate in Phase III of the SACCSA Project until the majority of other CAR/SAM States join the project. Cuba also noted that due to the high cost of the Project, it was necessary that the Project demonstrate that it would produce tangible results, which would eventually be implemented for the benefit of the CAR/SAM Regions. Jamaica highlighted that the financial contribution required to join the project would require consultation by some Directors with their respective fiscal authorities prior to being in a position to commit membership in the Project.

7.2.7 The Meeting noted the current status as well as the planned activities for Phase III of the SACCSA project; Central Caribbean States and Territories, as well as airspace users represented by the respective international organisations, were invited to consider participating in the Regional RLA/03/902 Project – SACCSA.

APPENDIX

RLA/03/902 – SACCSA PROJECT PHASE III SCHEDULED ACTIVITIES
PHASE III-A: o Monitoring and control network o Further completion in system definition o SACCSA UCP Prototype and its operation o Definition of support activities for system validation and certification o Analyse other complementary options in areas of poor or limited provisions o SACCSA WEB Page o Institutional aspects o Courses, Seminars and Workshops
PHASE III-B: o Cost / benefit study o Financing Study o Courses, Seminars and Workshops

Agenda Item 8: Environment Matters

Operational Considerations
Aircraft Noise and Local Air Quality Considerations
Aviation and Global Climate

8.1 Working papers 16, 17 and 18, presented by the Secretariat, provided an overview of the work of ICAO's Committee on Aviation Environmental Protection (CAEP) and the Group on International Aviation and Climate Change (GIACC) related to measures for reducing aviation's contribution to noise and emissions that affect local air quality and greenhouse gas emissions.

8.2 The Meeting noted that CAEP is preparing a report on the use of Environmental Management Systems (EMS). An ICAO Circular on the effects that departure thrust variation has on noise and emissions is under development. Also, ICAO is conducting a review of the environmental assessment methodologies and appropriate indicators for Continuous Descent Arrival techniques (CDA or CDA Operations). The review includes a high-level global assessment of the fuel and emissions benefits from CDA operations.

8.3 The Meeting was apprised that guidance contained in *Operational Opportunities to Minimise Fuel Use and Reduce Emissions* (Circular 303), which identifies and reviews various operational opportunities and techniques for minimising fuel consumption and hence CO_2 emissions in civil aviation operations, is being updated with new and updated information on current initiatives related to fuel burn reduction.

8.4 Since June 2008, the Meeting noted that the ICAO public website has included a Carbon Emissions Calculator whose impartial, peer reviewed methodology was developed through CAEP. It applies the best publicly available industry data to account for various factors such as aircraft types, route specific data, passenger load factors and cargo carried. The UN Environment Management Group (UNEMG) endorsed ICAO's Calculator as the official tool to compute carbon dioxide (CO_2) emissions from air travel for the UN system in April 2009.

8.5 The Meeting recalled that the 36th Session of the ICAO Assembly held in September 2007, recognising the critical importance of ICAO's providing continuous leadership to international civil aviation in limiting or reducing emissions from aircraft that contribute to global climate change, called for the formation of a high-level Group on International Aviation and Climate Change (GIACC). The GIACC was tasked with developing and recommending to the Council a Programme of Action on International Aviation and Climate Change for which technical support would be provided on the part of CAEP. Consequently, the GIACC was formed in January 2008 and is comprised of representatives from all ICAO regions with equitable participation from developing and developed States.

8.6 The key elements of the Programme of Action are 1) an implementation framework; 2) global aspirational goals for international aviation; 3) measures to achieve emissions reductions; and 4) means to measure progress. As a result of its four meetings to date, GIACC recommended a global aspirational goal of 2 percent annual improvement in fuel efficiency of the international civil aviation in-service fleet for consideration by the Council. This would represent a cumulative improvement of 13 percent in the short-term (2010 to 2012), 26 percent in the medium-term (2013 to 2020) and about 60 percent in the long-term (2021 to 2050) from a 2005 base level.

8.7 GIACC also recommended several measures from which States may choose to reduce international aviation emissions, such as use of aircraft-related technology, improved air traffic management and infrastructure, more efficient operations, economic/market-based measures, and regulatory measures. Each State would retain the ultimate authority to choose the portfolio of measures appropriate to its circumstances, consistent with global aspirational goals, and is encouraged to develop and file individual action plans with ICAO. The Meeting noted that CAEP endorsed the use of the *"Commercial Aircraft System Fuel Efficiency Metric"* (CASFE = Fuel Mass Consumed / Payload × Distance) as the fuel efficiency metric for the environmental goals assessment. Also, CAEP is preparing a report that offers guidance on methods of calculating fuel burn and CO_2 from operating civil aircraft (on a gate-to-gate basis) including passenger and freight traffic and reporting the related CO_2 emissions at the local, national and global levels.

8.8 In addition to technical, operational and market-based measures, the Meeting recognised that the use of alternative fuels offers one of the most promising options for reducing aviation emissions. In this regard, ICAO is planning a Conference on Aviation and Alternative Fuels to be hosted by Brazil from 16 to 18 November 2009. The conference will consider establishing an internationally agreed roadmap for facilitating the implementation of alternative fuels for aviation.

8.9 The Meeting also noted that ICAO is convening a high-level meeting to review the ICAO Programme of Action on International Aviation and Climate Change. The high-level meeting will be held in Montreal from 7 to 9 October 2009, to review the Programme of Action recommended by the GIACC and considered by the Council.

8.10 The Meeting continued its discussions on the subject of environment and appreciated the work of the Asia and South Pacific Initiative to Reduce Emissions (ASPIRE) and the Atlantic Interoperability Initiative to Reduce Emissions (AIRE), which were presented by the United States in IP/20. The Meeting noted that the demonstrations completed to date show that quantifiable environmental benefits are possible from these initiatives. The Meeting recommended that ICAO study the results of the AIRE Phase II set of demonstrations that can bring similar emissions reducing procedures to other regions.

8.11 In addition, the Meeting was informed (IP/21 refers) of the ongoing efforts by the Federal Aviation Administration to mitigate aviation's environmental impacts under the auspices of the Next Generation Air Transportation System (NextGen) plan and achieving environmental protection that allows for sustained aviation growth. The Meeting welcomed the update on activities by the United States that underscore its commitment to the sustained environmental improvement of aviation.

8.12 The Meeting, completing its debate, agreed to continue to consider environmental issues in the planning and implementation of air navigation systems including the development of new routes, design of terminal procedures, and ground movements.

Agenda Item 9: Air Transport Matters

9.1 Facilitation - Machine Readable Travel Documents (MRTD) - Public Key Directory (PKD)

9.1.1 The Secretariat presented IP/09 on the ICAO Public Key Directory (ICAO PKD). The PKD system contributes to facilitating the transit of persons and goods, improved security for travellers and promotion of efficient border crossing.

9.1.2 The Meeting was informed that the PKD allows document inspectors of ePassports at borders throughout the world to access the Directory and use the public keys to validate ePassports. Validating ePassports with these public keys reveals manipulations of the contactless chip integrated in the passport.

9.2 ICAO Air Services Negotiation Conference (ICAN)

9.2.1 The Secretariat presented WP/19, providing information on the concept and meeting format of the ICAO Air Services Negotiation Conference (ICAN), an innovative approach to facilitate and improve the efficiency of the air services negotiation process between States. The Meeting noted that ICAO held its first Conference, ICAN2008, in November 2008 in Dubai, United Arab Emirates, and will hold ICAN2009 in Istanbul, Turkey, from 28 September to 2 October 2009.

9.2.2 The ICAO NACC Regional Office had coordinated with the Air Transport Bureau to hold ICAN2010 in the CAR Region. In this regard, it was announced to the Meeting that Jamaica had offered to host ICAN2010 from 28 June to 2 July 2010, based on the Meeting requirements presented in the Appendix to WP/19. ICAO accepted and thanked Jamaica for its kind offer and expressed satisfaction that this important global event will be held in the CAR Region.

9.3 Conference on the Economics of Airports and Air Navigation Services (CEANS)

9.3.1 The Secretariat presented IP/10 on the results of the Conference on the Economics of Airports and Air Navigation Services (CEANS) held in September 2008, including follow-up actions to be undertaken by ICAO and States.

9.3.2 The CEANS Agenda included the following:

- issues inter-related and common to airports and air navigation services, involving interaction between States, providers and users;
- specific issues related to airport economics and management;

- specific issues related to air navigation services economics and management; and
- implementation of ICAO's policies on charges for airports and air navigation services.

9.3.3 The Meeting noted that regarding the implementation of ICAO's policies on charges, CEANS noted that while ICAO has developed comprehensive policies and guidance material on charges for airports and air navigation services, States do not always fully observe them. This is often due to a lack of awareness of and firm commitment by States to adhere to these policies.

9.3.4 In consideration of the actions recommended by CEANS, Cayman Islands emphasised the importance to States of receiving additional guidance on the categorisation of services for ANSP cost allocation and charges. Haiti expressed the complexity of implementing separation between regulator and service provider for airports and air navigation service providers. In this regard, Cayman Islands, Cuba, Netherlands Antilles, and Turks and Caicos informed that the separation had been achieved in their respective States/Territories and offered to share their experience with Haiti.

9.4 ICAO Statistics Activities

9.4.1 The Secretariat presented IP/11, providing a description of ICAO statistical activities carried out by the Economic Analyses and Databases Section. Article 67 of the Convention defines the ICAO mandate to collect data from each Contracting State. In parallel, Article 54 asks the Council to request, collect, examine and publish information relating to the operation of international air services, while Article 55 stipulates that the Council may conduct research into all aspects of air transport that are of international importance and communicate the results of its research to the Contracting States.

9.4.2 The Council is requested to examine on a regular basis the statistical data (referred to as "statistics on airline operations") collected by ICAO in order to more effectively meet the needs of the Organisation and its Contracting States and to establish the necessary metrics to monitor the performance of the Organisation in meeting its Strategic Objectives, notably Efficiency and Environment.

9.4.3 The function also involves the timely collection, processing, analysis, estimation, and dissemination of civil aviation data relating to commercial air carriers, airports and air navigation services, registered civil aircraft, and aircraft accident rates.

9.4.4 The Meeting noted that ICAO is already using available FIR data of some States to produce peak-period profiles in order to support planning and better management of FIR traffic. At the last CAR/SAM Traffic Forecasting Group (TFG) Meeting, a sample of peak-period parameters was produced from the FIR data provided by COCESNA covering their Member States. These various analyses of yearly, daily and hourly FIR traffic are part of the CAR/SAM TFG Report that was published in November 2008.

9.4.5 The Secretariat informed the Meeting about the convening of the CAR/SAM Workshop on Statistical Data Collection and Forecasting that was held in the ICAO NACC Regional Office from 29 June to 3 July 2009, which was very well attended by CAR/SAM States/Territories.

Agenda Item 10: Other Business

10.1 Planned ICAO Events 2009 – 2010

10.1.1 The Secretariat presented IP/12 with the ICAO NACC Regional Office calendar of meetings, seminars, courses and workshops for 2009 and 2010. The Meeting was reminded that the latest version of the schedule is always available on the ICAO NACC Regional Office website at the following link: http://www.mexico.icao.int/Meetings.html. The events of greater relevance to C/CAR States and Territories were highlighted to the Meeting. C/CAR States and Territories were invited to review the schedule of future ICAO regional and certain global events in order to plan and budget for the participation of their representatives.

10.1.2 Dominican Republic informed the Meeting that it will be holding a seminar on aviation and the environment, supported by ICAO, with the objective to raise awareness on the subject of environmental issues (noise, local air quality, and climate change) from 19 to 20 October 2009. Dominican Republic informed the Meeting of its intention to invite CAR Region States to the event to be held in Spanish language. Dominican Republic also informed the Meeting on the Eleventh Global TRAINAIR Training Symposium and Conference (GTC/11) to be held in Santo Domingo, Dominican Republic, from 7 to 11 December 2009.

10.1.3 The United States informed the Meeting on the Civil Air Navigation Services Organisation (CANSO), of which the FAA is a member. CANSO is an ICAO recognised observer international organisation in representation of its Air Navigation Service Provider (ANSP) members. The Netherlands Antilles Air Traffic Control, also a member of CANSO, invited C/CAR States and Territories to the First CANSO Caribbean ANSP Conference to be held in Curacao from 10 to 12 November 2009.

10.1.4 Cayman Islands referred to the Seminar/Workshop on Development of a Quality Assurance System to Enhance the Aeronautical Meteorological Services (English) to be held in Kingston, Jamaica, from 24 to 26 November 2009, and noted the financial difficulties that MET personnel from States/Territories have to attend ICAO MET training events. The Secretariat urged State/Territory civil aviation authorities to collaborate with the meteorological services, even when they are separate entities, to ensure that personnel are able to take advantage of the training provided for the benefit of the aviation sector and its safety and efficiency. In this regard, ICAO also cooperates closely with the WMO and CMO; ICAO invitations to the events are sent to both the civil aviation authorities and meteorological services.

10.1.5 Cuba enquired into the GREPECAS AIM/SG Meeting not shown on the schedule and the Secretariat confirmed that the meeting had only recently been confirmed to be held from 23 to 27 November 2009, in the ICAO South American Regional Office in Lima, Peru.

10.2 Priority NACC Regional Office Events and Activities for the next ICAO Triennium 2011 – 2013

10.2.1 The Secretariat presented WP/20, which provided the results of the global survey carried out by ICAO in 2008 in support of the organisational review of ICAO's regional programme, based on responses from NAM/CAR States and Territories. Only 7 of 21 NAM/CAR States responded to the survey, of which only one was from the C/CAR Region, namely Dominican Republic. Cuba expressed support for the conclusions reflected by the survey results and through it was not included in the responses identified by Headquarters informed that it had submitted a response to the survey through its Delegation at ICAO and provided the Secretariat a copy thereof.

10.2.2 The Meeting was informed that ICAO has commenced the business planning and budget preparation process for the next triennium for the period from 2011 to 2013. The Regional Offices are participating in and contributing to the process to ensure that the Regional Offices are assigned the necessary human and financial resources to enable it to implement projects and meet the Organisation's objectives during the next triennium and thereby satisfy States' needs and expectations.

10.2.3 Since the response rate from the C/CAR region to the global survey was insufficient to provide confidence that the survey results are representative of the region's needs and expectations, as well as to provide further detail on the projects and activities that will align with States' priorities for the services expected to be provided by the ICAO NACC Regional Office, a survey form was presented to the Meeting for States and Territories to complete and return to the Secretariat during this meeting.

10.2.4 Three of the four C/CAR States and all four Territories attending the Meeting submitted completed survey forms. The survey responses were consolidated and the results are presented in **Appendix A** to this part of the Report. These will be analysed by the Secretariat and taken into consideration in planning the ICAO NACC Regional Office work programme and activities for the next triennium.

10.2.5 A summary of the responses to the survey is presented as follows:

Key Activities

C/CAR States/Territories identified the following order of priority for key ICAO NACC Regional Office Activities:

1. Regional Educational Events
2. State Assistance Missions
3. Regional Meetings
4. Regional Guidance Material
5. Regional Cooperation Projects

Regional Educational Events

C/CAR States/Territories identified the following order of priority of areas for ICAO Regional Educational Events:

1. ATM
2. AIM
3. CNS
4. AGA
5. FS/OPS

State Assistance Missions

C/CAR States/Territories identified the following order of priority of areas for ICAO NACC Regional Office State Assistance Missions:

1. ATM/SAR
2. AGA
3. CNS
4. AIM
5. FS/OPS

Regional Meetings

C/CAR States/Territories identified the following order of priority for the type of ICAO Regional Meetings:

1. DCA
2. GREPECAS
3. Sub-regional Working Groups
4. GREPECAS Sub-groups
5. RASG-PA

Regional Guidance Material

C/CAR States/Territories identified the following order of priority of areas for ICAO Regional Guidance Material:

1. AGA
2. ATM
3. AIM
4. CNS
5. FS/OPS

National and Regional Cooperation Projects

C/CAR States/Territories identified a higher priority for National Assistance Projects than Regional Cooperation Projects. Furthermore, C/CAR States/Territories identified the following order of priority of areas for ICAO Assistance/Cooperation Projects:

1. Safety Oversight, Systems, Programmes and Management
2. Personnel Training
3. Air Navigation Services
4. Organisational / Institutional Strengthening
5. Security Oversight, Systems, Programmes and Services

10.3 Host and Dates for the Next Meeting

10.3.1 The Secretariat presented WP/21, which provided the historical and planned rotational scheme for States and Territories hosting the C/CAR/DCA Meetings as agreed at the Ninth Meeting of Directors of Civil Aviation of the Central Caribbean.

10.3.2 In view that the approved rotational scheme for States and Territories hosting C/CAR/DCA Meetings had been completed, it was proposed that the same scheme be approved for the next cycle of meetings, except for taking into account that this meeting, which was planned to be hosted by Turks and Caicos Islands was actually held in Cayman Islands. In this regard, the Meeting was invited to consider and approve the proposed extension of the C/CAR/DCA Meeting rotational scheme presented in **Appendix B** to this part of the Report.

10.3.3 As a result of the discussion under this agenda item, the Meeting decided to adopt the following decision:

DECISION 10/11 C/CAR/DCA MEETING HOST ROTATION SCHEME

The C/CAR DCAs agree on the meeting host rotation scheme presented in Appendix B to this part of the Report.

10.3.4 In accordance with the agreed C/CAR/DCA Meeting host rotation scheme, Haiti kindly confirmed to host the next C/CAR/DCA/11 Meeting in July 2010, for which the DCAs and ICAO expressed their appreciation. The Secretariat noted that the NACC/DCA/4 Meeting would be held in 2011, so there would be no C/CAR/DCA Meeting in that year. In this regard, the Dominican Republic acknowledged that it would host the C/CAR/DCA/12 Meeting in 2012.

10.4 Other Matters

10.4.1 COCESNA expressed its appreciation for the invitation that had been extended for the organisation to attend the C/CAR/DCA/10 Meeting and offered to collaborate, cooperate and support the C/CAR States and Territories in any way possible.

APPENDIX A

RESULTS OF THE SURVEY TO ESTABLISH C/CAR STATES' AND TERRITORIES' PRIORITIES FOR ICAO NACC REGIONAL OFFICE WORK PROGRAMME ACTIVITIES FOR THE NEXT TRIENNIUM (2011 – 2013)

(Completed during the C/CAR/DCA/10 Meeting on 20 August 2009)

States/Territories which responded: Aruba, Cayman Islands, Cuba, Dominican Republic, Haiti, Netherlands Antilles, Turks and Caicos (7)

1. Key Activities

Identify in order of priority (*1 – Most important, 5 – Least important*) to your State the key ICAO NACC RO Activities:

State Assistance Missions	Regional Meetings	Regional Educational Events	Regional Guidance Material	National and/or Regional Cooperation Projects
2	3	1	4	5

2. State Assistance Missions

Identify in order of priority (*1 – Most important, 8 – Least important*) to your State the area for ICAO NACC Regional Office State Assistance Missions:

AGA	AIM	ATM/SAR	AVSEC	CNS	FS/OPS	MET	ICAO RD
2	4	1	7	3	5	6	8

3. Regional Meetings

Identify in order of priority (*1 – Most important, 7 – Least important*) to your State the type of ICAO Regional Meetings:

DCA	Working Group	GREPECAS	GREPECAS Subgroup	GREPECAS Task Forces	RASG-PA	AVSEC/FAL/RG (prev. AVSEC/COMM)
1	3	2	4	6	5	7

4. Regional Educational Events

Identify in order of priority (*1 – Most important, 16 – Least important*) to your State the area for ICAO Regional Educational Events:

AGA	AIM	ATM	AVSEC	CNS	FS/OPS	MET	SAR
4	2	1	15	3	5	6	8
Audit	SSP	SMS	SDCPS / ECCAIRS	AIG	MED	ENV	Air Transport
12	9	7	16	10	11	14	13

5. Regional Guidance Material

Identify in order of priority (*1 – Most important, 8 – Least important*) to your State the area for ICAO Regional Guidance Material:

AGA	AIM	ATM	AVSEC	CNS	FS/OPS	MET	SAR
1	3	2	8	4	5	6	7

6. National and Regional Cooperation Projects

Identify in order of priority (*1 – Most important, 2 – Least important*) to your State the type of ICAO Assistance/Cooperation Projects:

National Assistance Project	Regional Cooperation Project
1	2

Identify in order of priority (*1 – Most important, 8 – Least important*) to your State the area for ICAO Assistance/Cooperation Projects:

Organisational / Institutional Strengthening	Air Navigation Services	Safety Oversight, Systems, Programmes and Management	Security Oversight, Systems, Programmes and Services
4	3	1	5
Airport Operations, Planning and Development	Personnel Training	Equipment and Systems Procurement	Other – please specify:_____
6	2	7	8

APPENDIX B

HISTORICAL AND FUTURE ROTATION SCHEME FOR STATES/TERRITORIES HOSTING THE C/CAR/DCA MEETINGS

No.	HOSTING STATE/TERRITORY	DATE
1	Haiti	April 1997
2	Dominican Republic	April 1998
3	Cuba	April 1999
4	Cayman Islands	May 2000
5	Jamaica	May 2001
6	Bahamas	July 2003
7	United States	June 2004
8	Netherlands Antilles	May 2006
9	Aruba	July 2007
10	Cayman Islands (instead of Turks and Caicos Islands)	August 2009
11	Haiti	July 2010
12	Dominican Republic	2012
13	Cuba	TBD
14	Jamaica	TBD
15	Bahamas	TBD
16	United States	TBD
17	Netherlands Antilles	TBD
18	Aruba	TBD
19	Turks and Caicos Islands	TBD