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

SECOND EASTERN CARIBBEAN CIVIL AVIATION TECHNICAL GROUP (E/CAR/CATG/2) MEETING

FINAL REPORT

MIAMI, UNITED STATES, 15 TO 17 JULY 2015

List of Contents

Contents   **Page**

HISTORICAL

ii.1   **Place and Date of the Meeting**

The Second Eastern Caribbean Civil Aviation Technical Group (E/CAR/CATG/2) Meeting was held at the Hyatt Regency Coral Gables Hotel in Miami, United States, from 15 to 17 July 2015.

ii.2   **Opening Ceremony**

Mr. Victor Hernandez, Regional Officer, Air Traffic Management, Search and Rescue, (RO/ATM/SAR) of the North American, Central American and Caribbean (NACC) Office of the International Civil Aviation Organization (ICAO) provided opening remarks and thanked United States, Federal Aviation Administration (FAA) for hosting the meeting, highlighting the targets to be achieved by the event, with the different air navigation implementations and the ICAO "No Country Left Behind" (NCLB) campaign. Ms. Shirley Ford, E/CAR/CATG Chairperson, welcomed the participants, noting the achievements and success of the groups and the work to be continued and delivered. Mr. Raul Chong, International Program Officer, United States, welcomed the participants and officially opened the meeting.

ii.3   **Officers of the Meeting**

The E/CAR/CATG/2 was chaired as plenary by Ms. Shirley Ford as the former E/CAR/CATG Chairperson and by Mrs. Shenneth Phillips as the new elected E/CAR/CATG Chairperson. Mr. Victor Hernandez (RO/ATM/SAR) and Mr. Julio Siu, Regional Officer, Communications, Navigation and Surveillance, both of the ICAO NACC Regional Office, acted as Secretaries of the Meetings.

ii.4   **Working Languages**

The working language of the meeting was English, and working papers, information papers, discussion papers, and report of the meeting were available to participants in said language.

ii.5   **Schedule and Working Arrangements**

It was agreed that the working hours for the sessions of the meeting would be from 09:00 to 16:30 hours daily with adequate breaks. The E/CAR/CATG Committees conducted their respective work sessions to finalize their progress. Ad hoc Groups were created during the Meeting to do further work on specific Agenda items.

ii.6 **Agenda**

Agenda Item 1 **Election of new E/CAR/CATG Chairperson**

Agenda Item 2: **Approval of Meeting Agenda, Work Method and Schedule**

Agenda Item 3: **Review and follow-up to Conclusions/Decisions of E/CAR/CATG/01, E/CAR/DCA/25, ANI/WG/02, GREPECAS/17, NACC/WG/04 and NACC/DCA/05 Meetings**

Agenda Item 4: **Air Navigation Matters**

4.1 Global/Regional Air Navigation Developments
- *Port-of-Spain* Declaration Targets
- Air Navigation (AN) Annual Report
- eANP development
- Filed flight plan/Flight plan (FPL) Ad hoc Group results
- Results of other Regional Implementation Groups - Civil Aviation Training Centres WG

4.2 Follow-up on the implementation of the NAM/CAR Regional Performance Based Air Navigation Plan (RPBANIP) and the *Port-of-Spain* Declaration Air Navigation Targets in the Eastern Caribbean:
- Progress reports of the AIM, AGA, ATM, CNS, MET and SAR Committees
- E/CAR/NTG and E/CAR/RD Ad hoc Group Reports
- Technical assistance to Saint Vincent in relation to Argyle Airport
- Review of performance-based metrics and benefits achieved (Air Navigation Report Forms - ANRFs)
- Other matters

4.3 National Air Navigation Plans - Aviation System Block Upgrade (ASBU) oriented

4.4 E/CAR/CATG contribution to ANI/WG/02 Meeting

Agenda Item 5: **Review E/CAR/CATG Terms of Reference (ToRs) and Work Programme**

Agenda Item 6: **Other Business**

ii.7 **Attendance**

The Meeting was attended by 9 States/Territories from the Eastern Caribbean and 1 International Organization, totalling 33 delegates as indicated in the list of participants.

ii.8 **Draft Conclusions and Decisions**

The Meeting recorded its activities as Draft Conclusions and Decisions as follows:

DRAFT
CONCLUSIONS: Activities requiring endorsement by the Directors of Civil Aviation of the Eastern Caribbean (E/CAR/DCA).

DECISIONS: Internal activities of the E/CAR Civil Aviation Technical Group (E/CAR/CATG).

Number	DRAFT CONCLUSIONS	Page
2/1	**ATFM IMPLEMENTATION IN THE PIARCO FIR**	4-5
2/2	**ACTIONS TO ADDRESS THE PERSISTENT PROBLEM OF MISSING/DUPLICATE AND ERRONEOUS FLIGHT PLANS**	4-6
2/3	**POS AIM TARGET – ACHIEVEMENT IN THE E/CAR AIM**	4-6
2/5	**REGULATORY FRAMEWORK ON OECS STATES FOR AERODROME CERTIFICATION**	4-7
2/6	**AGA COMMITTEE POCS**	4-7
2/8	**HARMONIZATION OF SAR SERVICES IN THE E/CAR**	4-10
2/10	**OPERATIONAL IMPLEMENTATION OF ARGYLE AIRPORT IN SAINT VINCENT AND THE GRENADINES**	4-12
2/12	**APPROVAL OF ECAR/CATG TERMS OF REFERENCE (TORS) AND WORK PROGRAMME**	5-1
2/13	**REMOTELY PILOTED AIRCRAFT SYSTEM (RPAs) OPERATIONS REGULATORY FRAMEWORK**	6-2

Number	DECISIONS	Page
2/4	**IMPLEMENTATION OF A SINGLE QMS CERTIFICATION FOR THE EASTERN CARIBBEAN**	4-6
2/7	**COORDINATION OF MET MATTERS**	4-9
2/9	**HARMONIZATION OF SAR SERVICES IN THE E/CAR**	4-10
2/11	**REVIEW OF AIR NAVIGATION TARGETS AND DATA COLLECTION**	4-13

ii.9 **List of Working, Information, and Discussion Papers and Presentations**

Refer to the Meeting web page:
http://www.icao.int/NACC/Pages/meetings-2015-ecarcatg2.aspx

		WORKING PAPERS		
Number	**Agenda Item**	**Title**	**Date**	**Prepared and Presented by**
WP/01	2	Approval of Meeting Agenda, Work Method and Schedule	06/07/15	Secretariat
WP/02	3	Follow-up to E/CAR/CATG/01 conclusions	07/07/15	E/CAR/CATG Chairperson

WORKING PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
WP/03	3	Review and follow-up to Conclusions/Decisions of E/CAR/CATG/01, E/CAR/DCA/25, ANI/WG/02, GREPECAS/17, NACC/WG/04 and NACC/DCA/05 Meetings	10/07/15	E/CAR/CATG Chairperson
WP/04	4.1	Port-of-Spain (POS) Declaration and the ICAO NACC Regional Office Strategy for supporting the "No Country Left Behind" (NCLB) Campaign	08/07/15	Secretariat
WP/05	4.1	Electronic Regional Air Navigation Plan (eANP) Development	08/07/15	Secretariat
WP/06	4.2	Activities and support provided to ANI/WG FPL Mon Group on Mitigation/Solving FPL Error/Duplication	07/07/15	FPL Mon Group Representative
WP/07	4.1	Results of the Second Nam/Car Civil Aviation Training Centres Working Group Meeting (NAM/CAR/CATC/WG/2) and activities carried out by the training Task Force	08/07/15	Secretariat
WP/08	4.2	Preliminary Progress report of the ATM Committee	07/07/15	E/CAR ATM Rapporteur
WP/09	4.2	Progress Report of the CNS Committee	07/07/15	CNS Committee Rapporteur
WP/10	4.2	Progress Report of the AGA Committee	06/07/15	AGA Committee Rapporteur
WP/11	4.2	Report of E/CAR/CATG AIM Committee	06/07/15	AIM Committee Rapporteur
WP/12	4.2	Proposal for AIM-QMS in E/CAR Region	13/07/15	Saint Lucia
WP/13	4.2	SAR Committee Report	09/07/15	SAR Committee Rapporteur/Trinidad and Tobago
WP/14	4.2	E/CAR/NTG and E/CAR/RD Ad-hoc Group Reports	15/07/15	E/CAR/NTG and E/CAR/RD Ad-hoc Group Reports
WP/15	4.2	NAM/CAR PBN Task Force Report	06/07/15	Trinidad and Tobago
WP/16	4.2	Review of Performance-Based Metrics and Benefits achieved using Air Navigation Reporting Forms (ANRFs)	08/07/15	Secretariat
WP/17	4.2	Trinidad and Tobago ATFM Progress Report	08/07/15	Trinidad and Tobago
WP/18	4.2	Global Navigation Satellite System (GNSS) activities in support of Performance-Based Navigation (PBN)/Automatic Dependent Surveillance – Broadcast (ADS-B) Implementation	08/07/15	Secretariat
WP/19	5	Review of the Terms of Reference (ToRS) and work programme of the E/CAR/CATG	10/07/15	E/CAR/CATG Chairperson
WP/20	4.1	ICAO Position for the International Telecommunication Union (ITU) World Radiocommunication Conference (WRC-2015)	08/07/15	Secretariat

WORKING PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
WP/21	4.2	Improvement in Air Navigation Communication between the FIRS of PIARCO and Dakar	07/07/15	Trinidad and Tobago

INFORMATION PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
IP/01	----	List of Working, Information Papers and Presentations	14/07/15	Secretariat
IP/02	3	Follow-up to E/CAR/DCA Valid Conclusions	07/07/15	Secretariat
IP/03	4.2	Information, Limitations, Procedures, Phraseology And AIC-Format Governing the Implementation of Radar-Assisted Situational Awareness (RASA) in the OECS	07/07/15	ECCAA
IP/04	4.2	The Argyle International Airport project in St. Vincent	07/07/15	ECCAA
IP/05	6	Unmanned Aircraft Systems	09/07/15	Trinidad and Tobago
IP/06	4.2	ADS-C/CPDLC Implmentation update by Trinidad & Tobago	09/07/15	Trinidad and Tobago
IP/07	4.2	The Caribbean Meteorological Organization's Service to Civil Aviation in the Caribbean	07/07/15	E/CAR/CATG Chairperson

DISCUSSION PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
DP/01	4.2	Progress Report of the AGA Committee	16/07/15	AGA Committee Rapporteur
DP/02	4.2	Progress Report of the CNS Committee	16/07/15	CNS Committee Rapporteur
DP/03	4.2	Progress Report of the AIM Committee	16/07/15	AIM Committee Rapporteur
DP/04	4.2	Progress Report of the SAR Committee	16/07/15	SAR Committee Rapporteur
DP/05	4.2	Progress Report of the ATM Committee	16/07/15	ATM Committee Rapporteur

		PRESENTATIONS	
Number	**Agenda Item**	**Title**	**Presented by**
1	4.2	RAIM Prediction	DW International

LIST OF PARTICIPANTS

ANTIGUA AND BARBUDA

Shenneth Phillips
Denise Silston
Audrey Lorraine. Davis
Luana Isaac

BARBADOS

Shirley Iante Ford
Samuel Philgence
Suzanne Griffith

DOMINICA

Jean Williams
Honica Lawrence

ECCAA

Charles Anthony Meade
Rudyard Ashe

FRANCE

Ange Patrick
Jean-Jacques Deschamps

GRENADA

Roselyn Charles
Earl Philip Charles

SAINT KITTS AND NEVIS

Daron Sutton
Kurt Louard

SAINT LUCIA

Lambert Remy
Amy Charles

TRINIDAD AND TOBAGO

Veronica Ramdath
Ian Gomez
Randy Gomez
Kingsley Herreira
Ellison Daren Ramlogan
Peters Curtis

UNITED STATES

Raul Chong
Stacey Herishen-Smith
Dulce M. Rosés
Edward Rodriguez
Dan Eaves
Jorge Chades

ICAO

Víctor Hernández
Julio Siu

CONTACT INFORMATION

Name / Position	Administration / Organization	Telephone / E-mail
Antigua and Barbuda		
Shenneth Phillips Air Traffic Services Operations Officer	V.C. Bird Air Traffic Services	Tel. +1 268 562 0301 E-mail shennethp@yahoo.com
Denise Silston Air Traffic Services Quality Assurance Officer	V.C. Bird Air Traffic Services	Tel. 268-562-5231 E-mail denisesilston@yahoo.com
Audrey Lorraine. Davis Air Traffic Services Examining Officer	V.C. Bird Air Traffic Services	Tel. +268-562-5232 E-mail sivad81@hotmail.com
Luana Isaac Senior Air Traffic Controller	V.C. Bird Air Traffic Services	Tel. +268 462 4702 E-mail
Barbados		
Shirley Iante Ford Chief Aeronautical Information Services Officer	Barbados Civil Aviation Training Centre	Tel. +1 246 428 0952 E-mail shirley.ford@barbados.gov.bb
Samuel Philgence Unit Chief - Air Traffic Services	Barbados Civil Aviation Training Centre	Tel. + 246 418 4167 E-mail samuel.philgence@barbados.gov.bb
Suzanne Griffith Technical Officer - Training and Systems	Barbados Civil Aviation Training Centre	Tel. + 246 428 6667 E-mail suzanne.griffith@barbados.gov.bb
Dominica		
Jean Williams Airport Manager	Dominica Air and Sea Ports Authority	Tel. + 767 275 2803 E-mail daspa@cwdom.dm;
Honica Lawrence Senior Air Traffic Controller	Dominica Air and Sea Ports Authority	Tel. + 767 255 9180 E-mail ms.lawrence@hotmail.com
ECCAA		
Charles Anthony Meade Director - Air Navigation Services	Eastern Caribbean Civil Aviation Authority (ECCAA)	Tel. +1 268 462 0000 E-mail contact@eccaa.aera/ameade@eccaa.aero
Rudyard Ashe Manager - CNS Division	Eastern Caribbean Civil Aviation Authority (ECCAA)	Tel. +1 268 462 0000 E-mail rashe@eccaa.aero / contact@eccaa.aero
France		
Ange Patrick Head of Guadeloupe ATS	DGAC/SNA Antilles Guyane	Tel. + 590 590 482 101 E-mail patrick.ange@Aviation.civile.gov.fr

Name / Position	Administration / Organization	Telephone / E-mail
Jean-Jacques Deschamps Head of Technical Services	DGAC/SNA Antilles Guyane	Tel. + 596 422 507 E-mail Jean-jacques.deschamps@aviation-civile.gouv.fr
Grenada		
Roselyn Charles Manager of Air Traffic Services	Grenade Airports Authority	Tel. 1 473 444 4148 E-mail rcharles@mbiagrenada.com
Earl Philip Charles Senior Civil Aviation Officer	Ministry of Tourism and Civil Aviation	Tel. +473 440 0366 E-mail earlpcharles@gmail.com
Saint Kitts and Nevis		
Daron Sutton Chief of Air Traffic Services	SCASPA	Tel. + 869 469 8460 E-mail deltas74@hotmail.com
Kurt Louard Senior Air Traffic Controller	SCASPA	Tel. +869 465 8121 E-mail kurt.louard@scaspa.com
Saint Lucia		
Lambert Remy Manager Air Traffic Services (M-ATS)	Saint Lucia Air and Sea Ports Authority (SLASPA)	Tel. +1758 451 0383/728 4869 E-mail Lambert.remy@slaspa.com
Amy Charles ATCO III George F. L. Charles Airport	Saint Lucia Air and Sea Ports Authority (SLASPA)	Tel. +1758 45 76156 E-mail Amy.charles@slaspa.com
Trinidad and Tobago		
Veronica Ramdath Manager CNS	Trinidad and Tobago Civil Aviation Authority (TTCA	Tel. +1 868 669 5239 E-mail vramdath@caa.gov.tt; vramdath@gmail.com
Ian Gomez Unit Chief - ANS Safety	Trinidad and Tobago Civil Aviation Authority	Tel. +868 669 4806 E-mail igomez@caa.gov.tt; atciv@caa.gov.tt
Randy Gomez Manager - AIM	Trinidad and Tobago Civil Aviation Authorithy	Tel. + 1 868 668 8222 E-mail rgomez@caa.gov.tt
Kingsley Herreira Manager Licensing Standards	Trinidad and Tobago Civil Aviation Authority	Tel. +868 668 8222 ext 2122 E-mail kherreira@caa.gov.tt
Ellison Daren Ramlogan Unit Chief - Airspace and Procedure Design	Trinidad and Tobago Civil Aviation Authority	Tel. + 1 868 668 8222 ext2545 E-mail eramlogan@caa.gov.tt
Peters Curtis Unit Chief ACC/APP Operations	Trinidad and Tobago Civil Aviation Authority	Tel. +868 669 4852 E-mail cpeters@caa.gov.tt

Name / Position	Administration / Organization	Telephone / E-mail
United States		
Raul Chong International Program Officer	Federal Aviation Administration (FAA)	Tel. +202-267-0999 E-mail raul.chong@faa.gov
Stacey Herishen-Smith Program Management Analyst	Federal Aviation Administration (FAA)	Tel. +202 267 0979 E-mail stace-ctr.herishen-smith@faa.gov
Dulce M. Rosés Program Manager, International Telecommunications CAR/SAM	Federal Aviation Administration (FAA)	Tel. + 1 305 716-1830 E-mail Dulce.roses@faa.gov
Edward Rodriguez Senior FAA Representative	Federal Aviation Administration (FAA)	Tel. +202 215 8925 E-mail ed.rodriguez@faa.gov
Dan Eaves Air traffic Control Specialist/ATC Requirements	Federal Aviation Administration (FAA)	Tel. +1 202 267 4726 E-mail dan.eaves@faa.gov
Jorge Chades ATO Mission Support Services	Federal Aviation Administration (FAA)	Tel. +202 267 0509 E-mail jorge.a.chades@faa.gov
ICAO		
Víctor Hernández Especialista Regional en Gestión del Tránsito Aéreo y Búsqueda y Salvamento	ICAO/OACI	Tel. + 52 55 5250 3211 E-mail vhernández@icao.int
Julio Siu Regional Officer, Communications, Navigation and Surveillance	ICAO/OACI	Tel. + 52 55 5250 3211 E-mail jsiu@icao.int

Agenda Item 1   Election of new E/CAR/CATG Chairperson

1.1   The Meeting recalled that the elected Chairperson in 2013 at the E/CAR/CATG/1 Meeting was Mr. Cedric Murrell from Barbados. Considering the retirement of Mr. Murrell, Barbados retained their commitment to chair the E/CAR/CATG, designating Ms. Shirley Ford as the acting E/CAR/CATG Chairperson.

1.2   The E/CAR/CATG/2 Meeting elected Mrs. Shenneth Phillip from Antigua and Barbuda, as the new E/CAR/CATG Chairperson.

Agenda Item 2   Approval of Meeting Agenda, Work Method and Schedule

2.1   The Secretariat presented WP/01, inviting the Meeting to approve the draft agenda and schedule, and referred to IP/01 with the list of associated documentation. The Meeting approved the agenda as presented in the historical section of this report and made minor changes to the schedule.

Agenda Item 3   **Review and follow-up to Conclusions/Decisions of E/CAR/CATG/01, E/CAR/DCA/25, ANI/WG/02, GREPECAS/17, NACC/WG/04 and NACC/DCA/05 Meetings**

3.1   Under WP/02, the Meeting reviewed and followed-up the E/CAR/CATG/1 meeting, valid Conclusions/Decisions. All conclusions and decisions were considered completed or superseded, except for Conclusions 1/14 - *Actions for developing the PIARCO NOTAM/AIS Contingency Plan*, 1/17 - *AIS familiarization training and adequate staff,* Decision 1/15 - *Evaluation of resolution for eliminating missing and duplicated FPLs*, and 1/19 - *SAR Action Plan*, as presented in **Appendix A** to this part of the Report, due to the delay in the implementation of the centralized flight planning system and Aeronautical Information Management (AIM) matters.

3.2   Under WP/03, the Meeting reviewed the valid conclusions related to the Second NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/2), CAR/SAM Regional Planning and Implementation Group (GREPECAS), Fourth North American, Central American and Caribbean Working Group Meeting (NACC/WG/4) and Fifth North American, Central American and Caribbean Directors of Civil Aviation Meeting (NACC/DCA/5), identifying the actions in support to the ANI/WG as shown in **Appendix B** to this part of the Report.

3.3   Finally, under IP02, the Meeting took note of the valid conclusions of the E/CAR/DCA/25 Meeting.

Agenda Item 4:   Air Navigation Matters

4.1   Global/Regional Air Navigation Developments

Port-of-Spain Declaration Targets and ICAO "No Country Left Behind" (NCLB) Campaign

4.1.1   Under WP/04, the Secretariat presented the safety and air navigation targets established in the *Port-of-Spain Declaration* (POS) *(*available at http://bit.ly/1FHU6v7) for the ICAO NAM/CAR Regions, as well as the ICAO NACC Regional Office initial strategy for the "*No Country Left Behind*" (NCLB) campaign (available at http://bit.ly/1BguAWD), that highlights ICAO's efforts to assist States in implementing ICAO Standards and Recommended Practices (SARPs) and the achievements of the regional targets.

4.1.2   The Meeting noted that ICAO NACC Regional Office conducted a thorough analysis of the current safety status of CAR States and Territories The results basically show priority assistance to those States which are below of 80% of the regional target of Effective Implementation (EI), based on the 8 Critical Elements (CEs) of the ICAO USOAP in accordance with Annex 19 requirements as established in the POS.

4.1.3   In this regard, the Meeting agreed to follow-up and actively support the POS targets fulfillment and the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP), as well as take the pertinent actions to align the work of the E/CAR/CATG and maintain a close coordination with the ICAO NACC Regional Office for any required assistance.

Air Navigation (AN) Annual Report

4.1.4   The Secretariat informed of the regional performance dashboards, which are published since May 2014, and their conforming indicators, including safety and air navigation targets of the POS. The regional performance dashboards are available at: http://www.icao.int/safety/Pages/Regional-Targets.aspx

4.1.5   Similarly, the Secretariat informed of the First Annual Global Air Navigation Report (2014) that presented the annual results, and suggested new areas where the report could provide additional indicators, including information on traffic growth, regional priorities, implementation success stories and explanations of the Regional Performance Dashboards. The first Annual Global Air Navigation Report - 2014 is available at: http://www.icao.int/airnavigation/Pages/Air-Navigation-Report.aspx.

eANP Development

4.1.6   Under WP/05, the Secretariat presented the progress achieved in the development of the new regional electronic Air Navigation Plan (eANP) template, amendment procedures and the action plan for its electronic availability and maintenance online. During 2013 and 2014, the Secretariat submitted papers to the Planning and Implementation Regional Groups (PIRGs), including GREPECAS and other regional air navigation related meetings in order to keep States informed of the new ANP template. The Meeting expressed its support to this initiative.

4.1.7   A more detailed description of each eANP Volume, the objectives, the development/approval process for amendment and the web-platform to support its use were presented in the Appendix to WP/05.

4.1.8   With regard to the CAR/SAM eANP, the first draft for Volume I and II are available for the designated State Points of Contact (PoCs) (for the E/CAR area; Sint Maarten and Trinidad and Tobago designated their PoCs). Volume III will be drafted by the second semester of 2015 to reflect the Aviation System Block Upgrade (ASBU) modules adopted by the CAR and SAM Regions. The approval process for Volume I and II will be conducted by 15 August 2015. For the NAM Region, a Regional Plan is in coordination process with Canada and United States, which agreed on draft Volumes I and III and developing draft Volume II in 2016.

4.1.9   In this regard, the Meeting agreed to conduct the necessary revision of the draft eANP to facilitate the development and approval of the eANP, through the designated PoCs.

Filed flight Plan/Flight Plan (FPL) Ad hoc Group Results

4.1.10   Under WP/06, the PIARCO FPL Monitoring Group Representatives, Mr. Ricky Bissessar (Main) and Lorraine Davis (Support), presented the activities and progress made for the solution/mitigation of erroneous/duplicated flight plan data. The Meeting took note of the FPL monitoring group responsibilities:

- reporting FPL duplication/error issues occurring in their State
- overseeing the execution of the FPL mitigation/solution action plan
- providing statistical data of the errors detected in the filing of flight plans in their State.

4.1.11   The Meeting was recalled of the recent results achieved by this FPL Mon Group:

- A list of suggested actions for the mitigation of flight plan errors
- Contact lists for feedback to the operators and ATS units for the purpose of correcting errors detected
- FPL Guidance document to contribute to the uniformity of procedures in the filing of flight plans
- Observations, results and conclusions from the analysis of the second phase of data collection, which results are shown in the Appendix to WP/06.
- The next actions on-going by the FPL Mon Group are:
  o Change the focus of mitigation, monitoring and reporting from encompassing all errors at the same time to concentrate on one error at the time
  o The most frequent errors identified from the analysis of the second phase of data collection will be extracted, and feedback will be given to the operators via IATA to correct these already detected situations.
  o Conduct a safety assessment that would determine the impact of flight plan errors in operational safety.

4.1.12   In this regard, the Meeting congratulated the relevant participation of the PIARCO FPL Mon Group representatives and the E/CAR States/Territories, and committed to support their activities. Further actions were developed by the AIM Committee as shown under Agenda Item 4.2 - AIM Implementation Matters.

Results of other Regional Implementation Groups - Civil Aviation Training Centres Working Group

4.1.13   Under WP/07, the Meeting was informed of the results of the Second NAM/CAR Civil Aviation Training Centres Working Group Meeting (NAM/CAR/CATC/WG/2), highlighting ICAO's training policy, the roles and functions of ICAO Global Aviation Training (GAT) Office and the Aviation Training Needs Questionnaire/surveys for the NAM/CAR Regions. The Meeting also took note of the activities on the update to the NAM/CAR Regional Aviation Training Plan.

4.1.14   Finally, the Meeting was informed that the NAM/CAR/CATC/WG will be an assistance entity for Civil Aviation Directors and will work in coordination with the existing implementation working groups, specifically, with the North American, Central American and Caribbean Working Group (NACC/WG), the NAM/CAR Air Navigation Implementation Working Group (ANI/WG) and the Eastern Caribbean Network Technical Group (E/CAR/CATG).

4.1.15   In this regard, recognizing the existence of two training Plus Centres in the E/CAR area, (Barbados and Trinidad and Tobago), the Meeting urged both entities to work together to attend the training needs in the E/CAR and to report their progress to the NAM/CAR/CATC/WG, as well as to participate more actively in the goals established in the NAM/CAR/CATC/WG. The E/CAR/CATG Committees were also urged to provide their input to identify training needs in the next NAM/CAR/CATC/WG.

Other Global/Regional Air Navigation Matters

ICAO World Radiocommunication Conference (WRC) - 2015 Position

4.1.16   Under WP/20, the Secretariat informed that during the ANI/WG/2 Meeting, States were recalled for their support for the ICAO position for WRC-2015, emphasizing the recent activities of ICAO and the NAM/CAR Regions as follows:

> a)   ICAO participation in the Interamerican Commission of Telecommunication CITEL meetings like the XXIV Meeting of the Permanent Consultative Commission: Radio communications (XXIV PCC.II) (Merida, Mexico) and the XXV Meeting of the Permanent Consultative Commission II: Radio communications (XXV PCC.II) (Medellin, Colombia);
>
> b)   keeping State Points of Contact (PoCs) list in support of the ICAO WRC-15 Position for coordination and mutual support;
>
> c)   keeping the Regional Frequency Assignment List available for States and general   public: ICAO Website: http://www.icao.int/NACC/Pages/frequency.aspx.; and
>
> d)   the results from the MEVA/TMG/30 Meeting for the registration of the Very Small Aperture Terminal (VSAT) nodes in the ITU master register

4.1.17   Similarly, ICAO indicated that at the most recent CITEL meeting, although some supports to ICAO position were completed, such as: flight tracking initiative and the Agenda Items 1.7 and 1.17; the participation of the Civil Aviation Authorities from the CAR Region was very low. The next CITEL meeting is scheduled for August 2015 in Ottawa (XXVI PCC.II).

4.1.18   The Meeting noted that the ICAO Position, as introduced in 2013, will be updated before the WRC-15, based on the clarifications resulted from the studies within ICAO and International Telecommunication Union (ITU-R), however, none of the updates will change the position. In light of this new update, States were urged to coordinate this information with their corresponding spectrum regulators, following Conclusion NACC/WG/4/5 - *Active Support from States for ICAO ITU WRC2015 Position*, as well as Conclusion ANI/WG/2/2 - *Coordination for updated version of the ICAO WRC-2015 Position*. The Meeting was informed that Trinidad and Tobago, in coordination with ICAO, will support the ICAO position for a Caribbean Telecommunication Union (CTU) event in the 1st quarter of 2015. The meeting fully supported these conclusions.

4.2   Follow-up on the implementation of the NAM/CAR Regional Performance Based Air Navigation Plan (RPBANIP) and the *Port-of-Spain* Declaration Air Navigation Targets in the Eastern Caribbean

Progress reports of the AIM, AGA, ATM, CNS, MET and SAR Committees

ATM Implementation Progress

4.2.1   The ATM Committee presented the outcome from the discussions of WP/8, WP/15, WP/17, IP/03 and DP/05, regarding the development, improvement and implementation of ATM matters for States/Territories within the E/CAR area. The main activities being addressed by the ATM Committee were as follows:

- Updating the E/CAR ATM Committee's Points of Contact (PoC)
- Review of PBN activities/initiatives within the E/CAR area
- Review of ATS Coordination activities between VC Bird APP, Princess Juliana APP, San Juan CERAP and Piarco ACC
- Updates on the Caribbean and North Atlantic Regional Supplementary Procedures (Doc 7030) amendment submission
- Review of Air traffic service(s) (ATS) Letters of Agreement (LOAs)
- Operational use of Controller-Pilot Data Link Communication (CPDLC) and Automatic Dependent Surveillance - Contract (ADS-C) in the E/CAR area
- Operational assistance for Argyle Airport Commissioning in Saint Vincent and the Grenadines (SVG)
- Other ATM Committee Tasks
  The detailed achievements of the ATM Committee are detailed in **Appendix C**.

4.2.2   With regard to the Air Traffic Flow Management (ATFM) implementation, Trinidad and Tobago Civil Aviation Authority (TTCAA) conducted an operational ATFM gap analysis in December 2014. As a result, TTCAA established the requirements needed for the establishment of an ATFM unit for the Piarco FIR to ensure that the POS target is met.

4.2.3   Trinidad and Tobago obtained the automated ATFM software/hardware tools and equipment to assist with situational awareness, demand and capacity balancing, and Collaborative Decision Making (CDM). The TTCAA air navigation service provider has implemented operational areas for a Flow Management Unit (FMU) and a Flight Management Position (FMP) in the Air traffic Control Center (ACC).

4.2.4   Trinidad and Tobago will conduct an ATFM/CDM workshop in November 2015 with local stakeholders (airport authorities, operators etc.), and States which Terminal Control Area (TMAs) lie within the Piarco Flight Information Region (FIR), to ensure that all stakeholders and adjacent TMAs are fully trained to participate in, and are part of, the decision making process. The CDM process will improve the overall ATM system operational efficiency and predictability.

4.2.5   As part of its ATFM implementation plan, Trinidad and Tobago will be seeking to collaborate with adjacent FIRs and the Terminal Control Area (TMAs) to sign Letters of Operational Agreements for establishing Traffic Management Initiatives (TMIs). Trinidad and Tobago will submit an ATFM   action   plan   by 1 October 2015 to the ICAO NACC Regional Office.

4.2.6   As a result, the meeting agreed on the following Draft Conclusion:

DRAFT CONCLUSION
ECAR/CATG/2/1   ATFM IMPLEMENTATION IN THE PIARCO FIR

          That, E/CAR States/Territories, in order to ensure the ATFM implementation in the Piarco FIR:

          a)   encourage signing or updating the ATFM LoAs to facilitate the implementation of Traffic Management Initiatives (TMIs) in the Piarco FIR, as required;

          b)   encourage participation of their specialists in the ATFM/CDM workshop to be hosted by Trinidad and Tobago in November 2015;

          c)   publish the capacity of their international aerodromes under their jurisdiction by **31 December 2015**; and

          d)   conduct ATFM teleconferences in the E/CAR applying the format suggested in E/CAR/CATG/2 WP/17 Appendix A.

          AIM Implementation Progress

          AIM QMS Implementation in the OECS States

4.2.7   Under WP/12, Saint Lucia informed on the need for the development of LoAs on the Quality Management System (QMS) for AIS (AIM), and to present a proposal to Trinidad and Tobago to allow the OECS Territories to operate under the umbrella of its AIM QMS.

AIM Committee

4.2.8   Under WP/11 and DP/03, the AIM Committee detailed their activities since the E/CAR/CATG/1 Meeting convened in Martinique, France from 19 to 21 June 2013, progressing on its work programme by means of emails and teleconferences. The detailed achievements of the AIM Committee are detailed in **Appendix D**. In this regard, the following draft conclusions were adopted:

DRAFT CONCLUSION
ECAR/CATG 2/2   **ACTIONS TO ADDRESS THE PERSISTENT PROBLEM OF MISSING/DUPLICATE AND ERRONEOUS FLIGHT PLANS**

That, in order to support the ANI/WG FPL Monitoring Group effort to solve the missing/duplication/erroneous flight plans in the E/CAR area, the E/CAR States and Territories:

a)   ensure that corresponding flight plan related regulations are in place identifying the requirements for the submission of Flight Plans in the States; where Regulations are not in place, make the necessary recommendations for the development of such regulations;

b)   at the aerodrome of departure, address problems at the source, ensuring that airlines/aircraft operating agencies and all originators of flight plans should be contacted each time an error is detected and be asked to make the necessary corrections; and

c)   report the progress to these actions by the E/CAR/CATG/3 Meeting.

DRAFT CONCLUSION
ECAR/CATG 2/3   **POS AIM TARGET – ACHIEVEMENT IN THE E/CAR AIM**

That, in order to identify all the challenges and deficiencies related to AIS and aligned to the fulfilment of the POS, targets review and complete the efforts for achieving the AIM POS target, and the AIM Committee convene a Meeting to be hosted by Antigua and Barbuda by November 2015 in order to develop action plans to assist States in meeting the aforementioned target.

DECISION
ECAR/CATG 2/4   **IMPLEMENTATION OF A SINGLE QMS CERTIFICATION FOR THE EASTERN CARIBBEAN**

That, in order to facilitate the implementation of AIM QMS in the E/CAR area:

a)   Trinidad and Tobago continue with the actions to achieve a QMS certified by ISO 9001 standard as required in Annex 15 and the POS Declaration; and

b)   the AIM Committee Rapporteur liaise with the NACC AIM RO and the Rapporteur of the ANI/WG AIM Task Force for support on the matter of a single certification and report findings to the ECAR/DCA/26 meeting.

AGA Implementation Progress

4.2.9   Under WP/10 and DP/01, the Meeting was informed of the lack of a functioning AGA Committee in the E/CAR area, where the Rapporteur nominated at the ECAR/CATG/1 was unable to continue as Rapporteur. Therefore, Trinidad and Tobago nominated a new AGA Committee Rapporteur through Mr. Kingsley Herreira. The AGA Committee recognized that the AGA Committee work programme will include the Regional Performance Objective (RPO) 5 - *Enhance capacity and efficiency of aerodrome operations in the CAR region* of the RPBANIP, runway excursions, certification of aerodromes and runway safety teams.

4.2.10   The analysis conducted by the AGA Committee is presented at **Appendix E.** In this regard, the following draft conclusions were adopted:

DRAFT CONCLUSION
E/CAR/CATG/2/5   **REGULATORY FRAMEWORK ON OECS STATES FOR AERODROME CERTIFICATION**

That, in order to support the achievement of the POS target on Aerodrome certification, the OECS States publish by **30 December 2015** the regulatory framework to allow the certification of international aerodromes in accordance with Annex 14 requirements and the ICAO Universal Safety Oversight Audit Programme (USOAP).

DRAFT CONCLUSION
E/CAR/CATG/2/6   **AGA COMMITTEE POCS**

That, in order to reactivate and continue the work of the AGA Committee, the E/CAR States/Territories nominate Points of Contact (PoCs) (Authority and Airport Service Providers) to the AGA Committee, reporting to ICAO, the ECAR/CATG Chairperson and the AGA Committee Rapporteur by **31August 2015**.

CNS Implementation Progress

PIARCO Communication with Dakar

4.2.11   Under WP/21, Trinidad and Tobago informed on their agreement with ASECNA to satisfy the requirements for Air Traffic Services/Direct Speech (ATS/DS) circuits between Piarco/Dakar and Piarco/Cayenne, through the AFISNET (African and Indian Ocean Satellite Network) Very Small Aperture Terminal (VSAT) network. The Factory Acceptance Tests (FATs) and the corresponding training had been completed in the first semester of 2015.

CNS Committee

4.2.12   Under WP/09 and DP/02, the CNS Committee presented an update on the activities carried out since the E/CAR/CATG/1 meeting, highlighting the progress achieved in their work programme as detailed in **Appendix F.**

4.2.13   The Meeting took note of the Terms of Reference (ToRs) draft for the CNS Committee as presented in **Appendix G.** Similarly, an update to the CNS Committee work programme is shown in **Appendix H.**

GNSS Activities

4.2.14   Under WP/18, the Secretariat proposed the need to define and work towards implementing actions for planning and implementation of Global Navigation Satellite System (GNSS) activities in support of the Performance-Based Navigation (PBN) and Automatic Dependent Surveillance - Broadcast (ADS-B) implementation. The Meeting acknowledged the need for familiarization on how the GNSS equipment supports PBN and the ADS-B service. The Meeting took note of GNSS relevant progress in the CAR Region, as described below:

- Wide Area Augmentation System (WAAS) and Local Area Augmentation System (LAAS) systems are implemented in United States. WAAS has operational coverage in North America including Mexico.
- A SBAS study has been completed for the CAR/SAM Regions as part of the RLA/03/902 - Transition to GNSS in the CAR/SAM Regions - Augmentation Solution for the Caribbean, Central and South America (SACCSA) Project.
- Some Ground-Based Augmentation System (GBAS) studies have been conducted in the CAR region.

4.2.15   In this regard, to develop an action plan for the effective implementation of GNSS to support PBN, the Meeting took note that by the 1st semester of 2016, the ICAO NACC Regional Office will conduct a workshop on GNSS implementation for supporting PBN. Finally, the Meeting noted that the ANI/WG/2 meeting had acknowledged the need for familiarization on how the GNSS equipment supports PBN and ADS-B service such as SBAS or GBAS.

4.2.16   Similarly, under P/01 (via videoconference), the company DW International provided an online demonstration and presented their application on GNSS RAIM Prediction System (GRPS), which provides RAIM/RNP predictions requirements as required in the PBN Manual for different navigation specifications on any required defined service volume. The GRPS has been implemented in the ASIA/PAC, Europe and recently in the SAM Region (SATDIS Service).

CPDLC and ADS-C Implementation

4.2.17   Under IP/06, Trinidad and Tobago informed on the work done towards the implementation and operational use of CPDLC and ADS-C, highlighting the internal Task Force created, the testing conducted, the simulations performed, the training and On-the-Job Training (OJT) provided, the publications made, the service monitor implemented, the safety assessment, and the regulatory and system automation matters conducted. An ICAO RLA/09/801 TEAM mission is scheduled for October to assist in the final operational implementation of the service for December 2015.

MET Implementation Progress

4.2.18   Under IP/07, a brief summary of the Caribbean Meteorological Organization activities was provided, as well as on meteorological equipment, capacity building to enable National Meteorological Services of its Member States to meet regional and international standards in the service of aeronautical meteorology.

Progress Report on MET Issues and Coordination

4.2.19   As per Decision E/CAR/CATG/1/1 - *MET Coordination in the E/CAR/CATG*, the Continuous Monitoring and Oversight (CMO) was contacted by the E/CAR/CATG Chairman Mr. Cedric Murrell at the time and an agreement of functional cooperation between the E/CAR/CATG and the CMO was established. This cooperation will be re-established as adopted in the following decision:

**DECISION
E/CAR/CATG/2/7   COORDINATION OF MET MATTERS**

That, in order to continue the coordination between the E/CAR/CATG Chairperson and the Caribbean Meteorological Office (CMO) to follow-up on Aeronautical implementation matters, the E/CAR/CATG Chairperson:

a)   Follow-up on the CMO/ E/CAR/CATG agreement to coordinate regional aeronautical meteorology matters;

b)   determine and agree on how to work together and exchange information;

c)   develop with the CMO the MET Action Plan based on the RPBANIP MET Regional Performance Objective (RPO); and

d)   report the progress on these actions by the E/CAR/DCA/26 Meeting.

SAR Implementation Progress

4.2.20   Under WP/13, the Meeting noted that some States have identified a Military/Civil Aeronautical representative on the SAR Committee. Moreover, to continue improvements in the SAR system, it was recognized that States should submit updated information of their POCs and encourage their participation in upcoming teleconferences, webinars and meetings in order to meet the SAR activities in the E/CAR area. In this Regard, E/CAR States/Territories should submit to the SAR Committe and ICAO the general information of their Military/Civil Aeronautical representative and any update of their SAR PoC to participate in activities of the SAR Committee.

4.2.21   The progress on signing agreements is as follows:

- Saint Lucia has signed a LOA with France
- Trinidad and Tobago has signed an agreement with France and Netherlands and is finalising one with Portugal.

4.2.22   The Meeting noted that the draft SAR Operators Training programme developed by Trinidad and Tobago would be used to certify aeronautical SAR operators to function within the Rescue Coordination Centre (RCC) Piarco, as well as to provide a SAR service on a 24 hours basis.

4.2.23   The Meeting recognized the need for greater emphasis by E/CAR States/Territories Civil Aviation Authorities organizations and at the respective government level for better collaboration between civil and military agencies. The detailed achievements of the SAR Committee are detailed in **Appendix I**. The Meeting agreed to conduct a high level meeting for E/CAR States/Territories including those from adjacent airspaces for 2016. In this regard, the following draft conclusion was adopted:

DRAFT CONCLUSION
ECAR/CATG 2/8   **HARMONIZATION OF SAR SERVICES IN THE E/CAR**

That:

a)   E/CAR States/Territories submit to the SAR Committee Rapporteur by 30 October 2015:

  i.   information of their Points of Contact (POCs) in the civil and military areas for coordination of the SAR services;
  ii.   improvements made to SAR services based on the analysis of their respective SAR capabilities; and
  iii.   their respective implementation Projects to be harmonised with the Regional SAR Implementation Project; and

b)   E/CAR States/Territories convene a high level meeting in the second quarter of 2016 with the participation of civil aviation Authorities and maritime authorities of the E/CAR States/Territories and States of adjacent FIRs, for the harmonized provision of SAR servicers in the E/CAR.

4.2.24   Taking into consideration that the AIM, ATM, CNS and AGA Committees presented an update of their work programme, the following decision was adopted:

DECISION
E/CAR/CATG/2/9   **APPROVAL OF COMMITTEES WORK PROGRAMME**

That, in order to continue the work of the E/CAR Committees, the E/CAR/CATG approve the update of the ATM, AIM, AGA and CNS Committees work programme.

E/CAR/NTG and E/CAR/RD Ad hoc Group Reports

4.2.25   Under WP/14, the Meeting was informed of the outcomes and conclusions achieved by the Sixth Meeting of the Eastern Caribbean Network Technical Group (E/CAR/NTG/6) and the Fourth Eastern Caribbean Radar Data Sharing Group Meeting (E/CAR/RD/4), carried out in Miami, United States, from 13 to 14 July 2015, highlighting the following:

- Actions taken in support of the valid conclusions related to the E/CAR AFS Network formulated by the First Eastern Caribbean Civil Aviation Technical Group Meeting (E/CAR/CATG/1) and the Twenty-fifth Meeting of Directors of Civil Aviation of the Eastern Caribbean (E/CAR/DCA/25) meetings.
- Analysis of the E/CAR/AFS network performance and improvement.
- Agreed action for voice circuits implementation between Anguilla and Sint Maarten, and Antigua and Saint Kitts and Nevis, as part of the MEVA III-E/CAR AFS Network interconnection.
- Progress in the installation of the French donated IRMA computers.
- ECCAA will work with the OECS States to gain funding approval for the Radar Display Project and then the existing draft Replacement Flight Plan (RFP) will be updated after the States finalize their user requirements with the support of the E/CAR/CATG.
- Technical assistance to Saint Vincent and the Grenadines in relation to Argyle Airport

4.2.26   Under IP/04, ECCAA provided some progress of the Argyle International Airport project in Saint Vincent and the Grenadines, highlighting the following:

- Terminal and Air Traffic Control buildings are complete, along with the Fire Station and the concrete turning bays at both extremities of the runway
- The runway would be basically 9000ft long, orientated 04/22, on the south-east coast of Saint Vincent and the Grenadines, and will be served by RNAV and VOR, VOR/DME instrument procedures for both runways
- The runway is currently being asphalted, and construction of the tunnel complexes for river-crossing under the runway is also ongoing
- The contract for the procedures-designer is being finalized, with the initial on-site survey to be conducted shortly thereafter. However, a lot of preliminary work has already been undertaken by the company
- Due to the delays in the installation of the VOR, the airport may be only opened with RNAV procedures
- The re-location of the Saint Vincent and the Grenadines TMA's primary ground-based navaid from the Saint Vincent NDB at E.T. Joshua to the Argyle VOR/DME at Argyle will result in the re-alignment of airways, and re-location of boundary reporting/transfer-of-control points, as depicted in the "initial drafts of TVSV-TVSA TMA fix and airway realignment to ARG VOR", and "SV NDB to ARG VOR relative locations"

4.2.27   ECCAA commented that in view of the necessary overall coordination that will be required for all adjacent affected airspaces, and the needed time-frames for Aeronautical Information Publication (AIP) submission and promulgation of a common implementation/effective date, the transition is anticipated to be in two phases:

a)   The airways/boundary-points would remain "as-is" at the initial opening of the airport, with all airspace-management adjustments being made within the Saint Vincent and the Grenadines TMA; and

b)   The transition will take place on the agreed and published effective date.

4.2.28   The Meeting recalled that assistance for the new Argyle Airport has been offered by the E/CAR/CATG since 2013 (Conclusion E/CAR/CATG/1/13 - *Operational Assistance for Argyle Airport Commissioning in Saint Vincent and the Grenadines refers*). Considering the absence of the Saint Vincent and the Grenadines in the meeting, and in light of the lack of progress and coordination of this new airport, the Meeting expressed its concern and requested an immediate response from Saint Vincent and the Grenadines.

4.2.29   Similarly, ICAO requested Saint Vincent and the Grenadines to officially inform their planning of the Argyle Airport for the CAR/SAM eANP development and corresponding amendments to the ATS routes and Five-letter name code (5-LNC) designators. In this regard, the following Draft Conclusion was agreed:

DRAFT CONCLUSION

ECAR/CATG 2/10 **OPERATIONAL IMPLEMENTATION OF ARGYLE AIRPORT IN SAINT VINCENT AND THE GRENADINES**

That, taking into account the required operational coordination between Civil Aviation Authorities of adjacent airspaces to Saint Vincent and the Grenadines Argyle International Airport, Saint Vincent and the Grenadines Civil Aviation Authority as a matter of urgency:

a) begin official coordination and share relevant information with adjacent E/CAR States/Territories so that they are better informed in order to ensure safety within their respective airspaces of jurisdiction through a proper Air Navigation Services (ANS) implementation project;

b) submit to ICAO NACC Regional Office the relevant information concerning the CAR/SAM ANP requirements associated with ANS operations for Argyle International Airport; and

c) review the performance-based metrics and benefits achieved (Air Navigation Report Forms (ANRFs)).

4.2.30   Under WP/16, the Meeting noted the lack of the ANRFs use adopted in the RPBANIP, and the improvements agreed in the ANI/WG/2 meeting for the E/CAR States/Territories implementation. The Meeting recalled that:

- the purpose of adopting the ANRFs was to support and facilitate the monitoring and reporting on the achievement of the elements conforming the ASBU modules, including the implementation progress of the elements and the reporting of the operational benefits gained from the ASBU modules. The operational benefits may be different from State to State depending on each State particular operational scenario
- The GREPECAS Programmes and Projects Review Committee (PPRC) would be responsible of the collection, monitoring and reporting progress on the operational improvement implementation in the CAR/SAM Regions through the Regional Offices (GREPECAS Conclusion 17/7 – *Approval of the Forms to Follow-Up on the Progress on Indicators and Targets for the CAR/SAM Regions)* refers
- The ICAO NACC Regional Office collects information on the air navigation progress through regional implementation groups, such as the NAM/CAR Air Navigation Implementation Working Group (ANI/WG) through the ANRFs use.

4.2.31   In this regard, during the ANI/WG/2 meeting, it was identified that only few States have developed their air navigation performance-based plans and have used the ASBU methodology. In this sense, a review and improvement of the ANRF was made in order to promote its implementation by the States, including an air navigation metrics analysis and a better understanding of the concepts, for the facilitation of the national target measuring process and the operational benefits.

4.2.32   The Meeting took note that ANI/WG/2 conducted a preliminary analysis for completing the air navigation targets as shown in **Appendix J**, where several metrics need to be defined starting with the definition of the criteria of success, the selection criteria and the selection to be applied. In this regard, after the Meeting reviewed the use and filling of the revised ANRFs **(Appendix K)** and the metrics, the Meeting concurred that the E/CAR area will follow-up on these actions by the ANI/WG adopting the following decision:

DECISION
E/CAR/CATG/2/11   **REVIEW OF AIR NAVIGATION TARGETS AND DATA COLLECTION**

> That, in order to measure and monitor the progress achieved in the E/CAR area related to air navigation matters, the E/CAR/CATG Rapporteurs review the air navigation targets as detailed in the preliminary analysis done by the ANI/WG/2 Meeting and collect the data in the revised ANRFs by **15 October 2015**.

4.3   National Air Navigation Plans - Aviation System Block Upgrade (ASBU) Oriented

4.3.1   The Meeting was informed that Trinidad and Tobago´s Air Navigation Plan is under development. This ANP refers to the Global Air Navigation Plan (GANP) and the ASBUs, as well as the RPBANIP, but at this stage, they are still planning the document structure, identifying elements of the plan but not yet gathered into a final document. In this Plan, ASBU is considered as a planning tool for their initiatives development and for some modules that are not priority for Trinidad and Tobago. For those modules that they have identified as priority, Trinidad and Tobago have created project plans for each of the different initiatives, (e.g: PBN, CPDLC, ADS-C, ATFM, ADS-B etc.) with the intention to transfer these project plans into the eventual Trinidad and Tobago ANP.

4.3.2   Antigua and Barbuda commented that they have developed a draft State Air Navigation Plan, which has been sent to Trinidad and Tobago for further review.

4.3.3   ICAO commented that for 2016, a technical assistance mission to Barbados is scheduled for the development of their National performance-based Air Navigation Plan, as well as a workshop for the NAM/CAR States for 2016 for the review of the ANRFs and the State National Performance-based ASBU planning.

4.3.4   Finally, Trinidad and Tobago proposed the Meeting to set up a teleconference through the E/CAR ATM Committee at a later date (after E/CAR/CATG/2) so that Trinidad and Tobago process can be presented to the other States.

4.3.5   No other national Plans were presented, and the Meeting recognized the lack of performance-based planning for the rest of the States/Territories in the E/CAR area.

4.4 E/CAR/CATG Contribution to ANI/WG/2 Meeting

4.4.1   The E/CAR/CATG Chairperson commented that a paper showing the E/CAR progress achieved by the E/CAR/CATG/1 meeting had been presented in the ANI/WG/2 meeting, including the concerns and limitations faced in the air navigation matters implementation.

Agenda Item 5   **Review E/CAR/CATG Terms of Reference (ToRs) and Work Programme**

5.1   Under WP/19, the Meeting was recalled that the current E/CAR/CATG Terms of Reference (ToRs) were developed from the former E/CAR/WG ToRs, work programme and membership. In order to align the work of the E/CAR/CATG with the ICAO "*No Country Left Behind*" (NCLB) campaign, the eANP and the RPBANIP/ASBU modules, an update of its ToRs and work programme was agreed as presented in **Appendix L** to this report. In this regard, the following draft conclusion was formulated:

DRAFT CONCLUSION
E/CAR/CATG/2/12   **APPROVAL OF ECAR/CATG TERMS OF REFERENCE (TORS) AND WORK PROGRAMME**

That, the E/CAR/CATG Terms of reference (ToRs) and Work programme as shown in Appendix L be considered approved.

5.2   Similarly, an update of the E/CAR/CATG PoCs was also made as shown in Appendix L to this report.

Agenda Item 6   Other Business

Host and Dates for the Next E/CAR/CATG Meeting

6.1   The Meeting recalled that through Conclusion E/CAR/CATG 1/25 - *E/CAR/CATG Meeting Rotational Scheme*, its host rotational scheme was approved as follows:

YEAR	STATES / TERRITORIES
2014	North America (NACC/WG/4)
2015	United States (E/CAR/CATG/2)
2016	Saint Kitts and Nevis (E/CAR/CATG/3)
2017	E/CAR (NACC/WG/5)
2018	Grenada (E/CAR/CATG/4)
2019	UK Overseas Territories (Anguilla, British Virgin Islands, Montserrat) (E/CAR/CATG/5)
2020	C/CAR (NACC/WG/6)
2021	Saint Vincent and the Grenadines (E/CAR/CATG/6)
2022	Saint Lucia (E/CAR/CATG/7)

6.2   In this regard, the next E/CAR/CATG/3 Meeting is to be hosted by Saint Kitts and Nevis in 2016. Also as agreed in the meeting mechanism of the E/CAR/NTG and the E/CAR/CATG, for 2016 both meetings will be held consecutively. Saint Kitts and Nevis confirmed the hosting for the next E/CARNTG, E/CAR/RD and E/CAR/CATG Meetings in 2016, tentatively for October 2016.

Operations of Remotely Piloted Aircraft Systems (RPAs) in ATS Airspace

6.3   Under IP/05, presented by Trinidad and Tobago, the Meeting noted that the High Level Safety Conference (HLSC) 2015 acknowledged the need for the States to continue focusing on RPAS integration in the civil airspace in safe conditions and the continuous adoption of proactive safety management approaches. HLSC 2015 issued recommendations available at http://www.icao.int/Meetings/HLSC2015/Pages/default.aspx.

6.4   Regardless of the studies performed by ICAO on RPAs use, States and Air Navigation Service Providers (ANSPs) should take timely actions to regulate operations in the Air Traffic Service(s) (ATS) airspace and international aerodromes. Taking this into consideration, the Meeting agreed the following Draft Conclusion:

DRAFT CONCLUSION
E/CAR/CATG/2/13   **REMOTELY   PILOTED   AIRCRAFT   SYSTEM   (RPAs)**
                           OPERATIONS REGULATORY FRAMEWORK

That. E/CAR States/Territories, in coordination with CASSOS:

a)   establish an operational regulatory framework for the use of RPAs in the ATS
        airspace and international aerodromes under their jurisdiction in order to:

    i.   facilitate the implementation of safety risk management tools related to
            RPAs operation;

    ii.   use the existing mechanisms for the purpose of sharing critical
            information related to RPAs operations and airspace use restrictions;

    iii.   facilitate educational means by media and other tools for users regarding
            RPAs operations;

    iv.   conduct risk assessment of non-regulated use of RPAs in the vicinity of
            aerodromes;

    v.   support coordination between Civil/Military Authorities to ensure the
            safety   of   civil   aircraft   operations   as   outlined   in   ICAO
            Cir 330 — *Civil/Military Cooperation in Air Traffic Management;* and

    vi.   Doc 10019, *Manual on Remotely Piloted Aircraft Systems* (RPAS) first
            edition 2015, should be the main guidance document. ICAO Cir 328 —
            Unmanned Aircraft Systems (UAS) is the older document and is largely
            superseded by the Doc 10019

b)   report on the progress of regulatory development and implementation of RPAs to
        the E/CAR/DCA/27 Meeting.

Conclusion	Text	Follow-up	Status
DECISION E/CAR/CATG/1/1 MET COORDINATION IN THE E/CAR/CATG	That in order to follow-up on progress with aeronautical MET matters, considering that Caribbean Meteorological Office (CMO) carries out periodic meetings and to avoid duplicating meetings to address MET issues, the E/CAR/CATG Chairperson: a) carry out coordination with the CMO Coordinator as appropriate; b) coordinate with ICAO and the E/CAR/CATG necessary information to be submitted to the November 2013 CMO Meeting for follow-up and response from MET entities reporting to the E/CAR/CATG on this action by 30 October 2013; and c) report the agreements and results reached with the CMO Coordinator on the MET work plan at the E/CAR/DCA/25 Meeting.	E/CAR/CATG Chairperson reported the coordinate achieved with the CMO.	Superseded
DECISION E/CAR/CATG/1/2 REVIEW OF AGA ACTIVITIES FOR THE E/CAR/CATG	That considering the absence of a functioning AGA committee, and to determine the way to proceed with AGA matters: a) the E/CAR CATG Chairperson convene an introductory teleconference involving the ICAO-RO/AGA; Kellman Walcott, AGA Rapporteur, Barbados; and Kingsley Herrera, Trinidad and Tobago to formulate and prioritize the AGA issues for consideration by the E/CAR/CATG; and b) the AGA Rapporteur report on the progress of the AGA committee to the CATG Chairperson by 30 October 2013 for onward submission to the E/CAR/DCA Meeting in December 2013.	Mr. Kingsley Herrera (Trinidad and Tobago) is the AGA Committee Rapporteur.	Completed
CONCLUSION E/CAR/CATG/1/3 E/CAR/CATG TERMS OF REFERENCE AND MEMBERSHIP	That considering the newly named E/CAR/CATG, the proposed Terms of Reference and membership shown in Appendices A and B to this part of the report be presented for approval by the E/CAR/DCA/25 Meeting.		Completed
CONCLUSION 1/4 ASSISTANCE FOR TRAINING ON ICAO FUEL SAVINGS ESTIMATION TOOL (IFSET)	That to promote and ensure the use of IFSET: a) E/CAR States/Territories inform ICAO of their need for online IFSET training by 30 July 2013; and b) ICAO provide IFSET online training by 30 September 2013.	This action is being undertaken by the ANI/WG (PBN TF) with IATA support: Antigua and Barbuda, Barbados and Trinidad and Tobago participated. Suggestion to designate PoC for completing the Fuel Saving forms every 6 months- ANIWG/02	Superseded by ANI/WG actions
CONCLUSION 1/5 FOLLOW-UP TO AN-CONF/12 RECOMMENDATIONS	That in order to follow-up on implementation of Recommendations from the AN-Conf/12, the E/CAR/CATG: a) study the corresponding recommendations of the AN-Conf/12; b) initiate and propose follow-up actions to E/CAR States/Territories in coordination with the ANI/WG; c) update its work programme as required; and d) the progress of items a), b) and c) be reported to the E/CAR/DCA/25 Meeting.	Included in current action plans of the E/CAR/CATG Committees	Completed

Conclusion	Text	Follow-up	Status
DECISION 1/6 E/CAR PBN IMPLEMENTATION PLAN	That to consolidate and complete the Regional E/CAR PBN Implementation Plan: a) the ATM Rapporteur follow-up on the submission of National PBN Implementation Plans from Netherlands and United Kingdom Territories by 26 June 2013; b) ECCAA follow-up on the submission of the National PBN Implementation Plans from the rest of the OECS (e.g, Dominica, Saint Kitts and Nevis and Saint Lucia) by 26 June 2013; c) the ATM Committee provide feedback to Antigua and Barbuda concerning their National PBN Implementation Plan by 31 August 2013; d) the E/CAR States and Territories take note of Trinidad and Tobago PBN initiatives (E/CAR/CATG/1-IP/07) and that those States/Territories requiring assistance in understanding the PBN airspace concept make use of Trinidad and Tobago's expertise; and e) the ATM Committee present the revised E/CAR PBN Implementation Plan to the E/CAR/DCA/25 Meeting.	Based on the refocus of the ICAO NACC Office from Planning to Implementation and guidance from the ATM & SAR RO, Decision 1/6 has now been superseded to E/CAR PBN Implementation Project and the following decisions have been made: a) Members with the E/CAR States are to form Regional PBN Airspace Design Team whose focus will be to harmonise the en-Route and Terminal airspaces within the E/CAR area in accordance with the PBN Airspace Redesign Concept. b) Trinidad and Tobago begin CDM with the adjacent En-Route ANSPs to harmonise the PBN Airspace Redesign Concept. c) States/Territories inform the ATM and ANI/WG PBN Rapporteurs of those persons selected for the PBN Airspace Design Team. d) States/Territories are urged to state their interest to the ATM and PBN ANI/WG Rapporteurs on attending a Regional PBN Workshop scheduled for November 2015. e) The ATM Committee to present an update on the E/CAR PBN Implementation Project to E/CAR/DCA/26 Meeting. There will be an ATFM Workshop in November 2015. States/Territories are required to state their interest on attending by 28 July 2015.	Superseded

Conclusion	Text	Follow-up	Status
DECISION 1/7 **PBN TASK FORCE**	That in order to propel PBN implementation activities in the E/CAR based on the E/CAR PBN Implementation Plan, a PBN Taskforce under the lead of the ATM Committee be activated with participation of ATM, AIM and CNS specialists and the ATM Committee Rapporteur to: a) coordinate with the AIM and CNS Committees for designation of personnel to participate in the PBN Task Force; b) prepare the PBN Task Force Terms of Reference (ToRs) and work programme; c) report the results of a) and b) to the E/CAR/CATG Chairman by 30 July 2013; and d) present PBN Task Force progress to the E/CAR/DCA/25 Meeting.	Based on the directives of the E/CAR/DCA/25 Meeting these items have been considered completed for the ATM Committee as they are superseded by the formation of the ANI/WG PBN Task Force. The following decisions have been made by the ATM Committee: a) Outstanding States/Territories for representatives on the ANI/WG PBN Task Force: b) - Dominica - France - Grenada - Saint Kitts and Nevis - St Maarten - Saint Vincent and the Grenadines to inform the ANI/WG PBN Rapporteur (rmohammed@caa.gov.tt) of those persons selected for the ANI/WG PBN Task Force.	Superseded

Conclusion	Text	Follow-up	Status
CONCLUSION 1/8 E/CAR PBN TRAINING APPROACH	That in order to streamline E/CAR PBN implementation with a phased training approach: a) E/CAR States and Territories take advantage of the available PBN online web training to improve PBN awareness for certain stakeholders (e.g, ATCOs, Air Operators, Managers); b) E/CAR States and Territories designate, with the assistance of the ATM Committee, personnel for the formation of State Core and Auxiliary PBN Teams; c) the ATM Committee, in coordination with E/CAR States and Territories, continue to consider the option of IATA's "In Group" PBN Training for more structured PBN training; d) the ATM Committee report the progress of these training approach activities to the E/CAR/DCA/25 Meeting; and e) the ATM Committee present the revised E/CAR PBN Implementation Plan to the E/CAR/DCA/25 Meeting.	The ATM Committee was informed of the following: a) Trinidad and Tobago intends to host a PBN Workshop in November 2015. b) States/Territories are to state their interest in attending the Regional PBN Workshop carded for November 2015 by 28 July 2015. Based on the information presented in a) and b) above, the following decisions have been made by the ATM Committee: c) in preparation for the Regional PBN Workshop, States/Territories are urged to make effective use of ICAO online PBN training available on the website (http://www.icao.int/Training/Pages/coursecategory.aspx) as this training should be adequate prerequisite for participants of the respective National Core Teams. d) the ANI/WG PBN Rapporteur is to send information on the PBN Workshop Objectives to the E/CAR States/Territories at least two months (September 2015) before the scheduled start of the Workshop, and e) the ATM Committee report on the progress of these training approach activities to the E/CAR/DCA/26 Meeting.	Completed:
DECISION 1/9 ATS COORDINATION IMPROVEMENTS BETWEEN V. C. BIRD APP, PRINCESS JULIANA APP, SAN JUAN ACC AND PIARCO ACC	That in order to resolve and improve ATS coordination between V. C. Bird APP, Princess Juliana APP, San Juan ACC and PIARCO ACC that the ATM Committee Rapporteur, in coordination with the United States, Saint Maarten and Antigua and Barbuda: a) continue as lead to get a response on the coordination proposals mentioned in E/CAR/CATG/1-WP16 by 30 August 2013; and b) report the progress to the E/CAR/CATG Chairman for final reporting to the E/CAR/DCA/25 Meeting.	The ATM Committee took note of the following: a) During the Quadrilateral ATC Coordination and Radar Data Sharing Meeting held in San Juan, Puerto Rico (19-20 March, 2015), there was the finalising and signing of the MOU which took effect from 04 May 2015. b) Feedback attained from the concerned States/Territories on the Monitoring Phase has provided positive results.	Completed

Conclusion	Text	Follow-up	Status
CONCLUSION 1/10 UPDATE TO ATS LETTERS OF AGREEMENT	That in order to streamline updating of all E/CAR ATS Unit LOAs: a) E/CAR State and Territory ATS Units review and inform the ATM Committee of the status of validity and accuracy of their ATS LOAs by 30 September 2013; b) the ATM Committee coordinate and identify those States and Territories whose LOAs need updating for reasons of relevancy, clarity, safety and efficiency in the provision of respective ATS to aircraft operations by 31 October 2013; and c) the E/CAR/CATG Chairman report to the E/CAR/DCA/25 Meeting the status and update progress of the ATS LOAs.	The ATM Committee after careful consideration decided to work towards achieving the LOA and PBN activities simultaneously.	Completed
CONCLUSION E/CAR/CATG 1/11 PROPOSAL FOR AMENDMENT TO DOC 7030 FOR 50NM LONGITUDINAL SEPARATION MINIMA IN THE NEW YORK FIR AND OCEANIC CONTROL AREA	That in order to complete the proposal for amendment to Doc 7030 for 50NM longitudinal separation minima in the New York FIR and Oceanic Control area: a) the E/CAR States and Territories support the proposal for amendment to ICAO Doc 7030 - CAR/Region Supplementary Procedures, part CAR and NAT Regions, as stated in WP/17; and b) United States submits this amendment to the ICAO NACC Regional Office for coordination and approval as established in Doc 7030.	Based on comments provided by ICAO ATM & SAR RO concerning the redesign of the New York FIR, the ATM Committee decided that this Item needs to be reviewed.	Completed
CONCLUSION 1/12 OPERATIONAL USE OF CPDLC AND ADS-C IN THE E/CAR	That in order to prepare for implementation of 50NM longitudinal separation minima in the New York FIR and its application in the E/CAR: a) Trinidad and Tobago analyze and identify the necessary actions for the operational use of CPDLC and ADS-C in the PIARCO FIR, including the necessary automated system adjustments and associated ATS procedures; b) the ATM Committee develop and coordinate the necessary proposal for the inclusion of CPDLC and ADS-C in the corresponding sections of ICAO Doc 7030 – CAR Region Supplementary Procedures by 30 October 2013; and c) Trinidad and Tobago and the ATM Committee inform the E/CAR/CATG Chairman of the progress of a) and b) for corresponding report to the E/CAR/DCA/25 Meeting.	The ATM Committee decided that T&T and USA to have collaborative CPDLC and ADS-C talks at least three months prior to December 2015. This Meeting will occur ADSC and CPDLC Go-Team in October 2015. Progress also provided in IP/06	Completed
CONCLUSION 1/13 OPERATIONAL ASSISTANCE FOR ARGYLE AIRPORT COMMISSIONING IN SAINT VINCENT AND THE GRENADINES	That considering that the new Argyle Airport will be commissioned in 2014: a) the PBN Task Force (PBNTF) carry out an operational evaluation of impact to regional operations aiming to provide assistance for the commissioning; b) Saint Vincent and the Grenadines and ECCAA keep the E/CAR/CATG informed on the implementation status of the Argyle Airport; and c) the PBNTF, Saint Vincent and the Grenadines and ECCAA report the results of a) and b) to the E/CAR/DCA/25 Meeting	Follow-up made in E/CAR/CATG/02 Meeting. The ATM Committee agreed on the following: a) St Vincent and the Grenadines and ECCAA keep the E/CAR/CATG informed on the implementation status of the Argyle Airport; and b) St Vincent and the Grenadines continues with the CDM process with its neighbouring States and Trinidad and Tobago so that the necessary assistance can be provided where required.	Superseded

Conclusion	Text	Follow-up	Status
CONCLUSION 1/14 ACTIONS FOR DEVELOPING THE PIARCO NOTAM/AIS CONTINGENCY PLAN	That in order to update the actions for developing a PIARCO AIS/NOTAM Contingency Plan as requested by the E/CAR Directors: a) the AIS Committee, in collaboration with the Trinidad and Tobago PIARCO AIS Office, develop and circulate a draft PIARCO AIS Contingency Plan to E/CAR States, ECCAA and ICAO by 30 September 2013; b) the AIS Committee Rapporteur continue coordination with Curacao to establish the necessary agreement(s) for formalizing their support of the PIARCO NOTAM/AIS Contingency Plan; c) E/CAR States, ECCAA and ICAO provide the E/CAR AIS Committee with comments on the draft PIARCO AIS Contingency Plan by 30 November 2013; and d) the E/CAR AIS Committee Rapporteur provide the E/CAR/CATG Chairman the initial draft version of PIARCO AIS Contingency Plan for presentation to the E/CAR/DCA/25 Meeting.	Trinidad and Tobago has signed a Letter of Intent with Curacao for reciprocal assistance In case of an emergency as a contingency The Trinidad and Tobago and Curacao circuit has been informed for the MEVA III-REDDIG Interconnection. To report for next E/CAR/DCA/26 Meeting.	Valid
DECISION 1/15 EVALUATION OF RESOLUTION FOR ELIMINATING MISSING AND DUPLICATED FPLS	That in order to evaluate the effectiveness of the centralized FPL system, as resolution to eliminate the missing and duplicated FPLs in the E/CAR, the AIM Committee carry out an evaluation for this purpose once the centralized FPL system is operating with stability, tentatively by January 2014.	The CFPS will be installed by 3 Q 2015.	Valid
DECISION E/CAR/CATG 1/16 INVESTIGATION OF NON FPL 2012 COMPLIANT FPLS	That in order to investigate the amount of non FPL 2012 compliant flight plans: a) Trinidad and Tobago carry out a survey of all flight plans being disseminated by E/CAR States and Territories during the period 1 to 31 July 2013; b) Trinidad and Tobago provide a report on the survey analysis to E/CAR States, E/CAR/CATG and the ICAO NACC Regional Office by 31August 2013; c) E/CAR States note the contents of the report and take appropriate action to correct their respective deficiencies; d) Trinidad and Tobago continue to monitor FPLs and inform States when errors occur; and e) the E/CAR/CATG Chairman report the progress of these activities to the E/CAR/DCA/25 Meeting.	Undertaken by participation in FPL Mon Group	Completed

Conclusion	Text	Follow-up	Status
CONCLUSION 1/17 AIS FAMILIARIZATION TRAINING AND ADEQUATE STAFF	That in order to ensure that staff involved in the operation of the Centralized Flight Planning System are adequately qualified to perform flight planning: a) E/CAR States/Territories arrange for training in AIM quality management for key members of staff by 15 December 2013, and that these staff members be mandated to establish a quality system in either their AIS Units or their ATM Units responsible for performing AIS tasks; b) PIARCO AIS, in conjunction with the AIM Committee Rapporteur (Shirley Ford, Barbados), circulate, draft requirements and procedures for the submission of flight plans to the PIARCO Centralized Flight Planning System to E/CAR States by 30 September 2013 for comments to be received by 30 November 2013, and then to publish these procedures by December 2013; c) E/CAR States ensure that approved aircraft handling agents have staff that is adequately trained to perform flight planning; and d) Trinidad and Tobago consider hosting a familiarization programme for AIS operational staff who will interface with the new AIS and CFPL systems within the first half of 2014, submitting an invitation no later than 1 November 2013.	Awaiting CFPS implementation	Valid
CONCLUSION 1/18 IMPROVEMENTS TO HF AERONAUTICAL MOBILE SERVICE COMMUNICATIONS IN THE PIARCO FIR	That in consideration of the improvements made by Trinidad and Tobago in the provision of HF AMS service within the oceanic portion of the PIARCO FIR effective May 2011, ICAO obtain feedback from IATA on HF performance and forward it to Trinidad and Tobago by 30 August 2013.	In May 2011 Trinidad and Tobago formalized an agreement with ARINC for the provision of HF service in the PIARCO Oceanic airspace. At the ANI/WG/2 meeting (1-4 June 2015) IATA informed no new reports on HF issues.	Completed
DECISION E/CAR/CATG 1/19 SAR ACTION PLAN	That based on the teleconferences and the exchange of information between the Rescue Coordination Centre (RCC), Rescue Subcentre (RSC) and other SAR related parties, the SAR Committee submit its action plan (activities, dates, responsible, deliverables) to the E/CAR/CATG no later than 30 August 2013 for presentation at the E/CAR/DCA/25 Meeting.	E/CAR SAR Committee to report by the E/CAR/DCA/26 Meeting	Valid
CONCLUSION E/CAR/CATG 1/20 EXCHANGE OF INFORMATION FOR SAR IMPLEMENTATION	That ICAO facilitate, through coordination via teleconference, the exchange of expertise and experiences among the SAR Committee, E/CAR States, and other States with mature SAR structures to assist with SAR implementation in E/CAR States by 15 August 2013.	Conclusion E/CAR/CATG/2/8 - *Harmonization of SAR services in the E/CAR*	Superseded
DECISION E/CAR/CATG/1/21 AGA, AIM, ATM AND CNS ACTION PLANS	That in order to follow-up on air navigation implementation in the E/CAR, the Rapporteurs of the AGA, AIM, ATM and CNS Committees review and update their corresponding action plans and send these updates to the E/CAR/CATG Chairman no later than 30 July 2013.	Action plans were reviewed	Completed
CONCLUSION E/CAR/CATG 1/22 IDENTIFICATION OF TRAINING NEEDS	That in order to support training preparation by the CAR Training Centres, the Committee Rapporteurs identify their respective training needs within the E/CAR and relay such information to the E/CAR/CATG Chairman for the upcoming Civil Aviation Training Centres Meeting of the CAR Region to be held at the ICAO NACC Regional Office, Mexico City, Mexico, from 27 to 30 August 2013.	Done	Completed

Conclusion	Text	Follow-up	Status
CONCLUSION E/CAR/CATG 1/23 ACTIVE STATE SUPPORT FOR THE ICAO POSITION AT THE WRC-2015	That in order to ensure active support by States/Territories for the ICAO position at the WRC-15, for the protection of Aeronautical frequency spectrum and satisfy the future frequency spectrum needs of aviation E/CAR States: a) in preparing their proposals to the ITU WRC-15, include to the maximum extent possible, the ICAO position for WRC-2015; b) fully participate in the development of State positions to ensure support for the ICAO position at the WRC-15; c) include representatives of their civil aviation administrations and experts from aviation in their national delegations, to the extent possible, when participating in the ITU-R and regional preparatory activities for WRC-15; and d) ensure to the extent possible, that delegations to the WRC-15 include representatives from their civil aviation administrations.	Action taken at ANI/WG/02 Meeting	Completed
DECISION E/CAR/CATG 1/24 ANI/WG/1 MEETING PREPARATION BY THE E/CAR/CATG	That in order to ensure active participation by E/CAR States and Territories at the ANI/WG/1 Meeting and appropriate preparation of E/CAR progress, the E/CAR/CATG Chairperson: a) schedule, with the assistance of ICAO, a teleconference for the E/CAR States/Territories in preparation of the ANI/WG/1 to provide inputs; and b) coordinate and develop the corresponding working paper for the ANI/WG/1 Meeting describing all E/CAR air navigation progress.	Done	Completed
CONCLUSION E/CAR/CATG 1/25 E/CAR/CATG MEETING ROTATIONAL SCHEME	That in order to continue air navigation implementation matters in the E/CAR, the E/CAR/CATG adopt the rotational scheme included in the Appendix to this part of the report for its future meetings.	Approved- Need to propose new future meeting venues. Last Meeting venue is established up to 2016.	Completed

APPENDIX B
FOLLOW-UP TO ANI/WG/2 CONCLUSIONS

Number	Conclusion/Decision	Deliverable	Responsible for action	Deadline	Follow-up by E/CAR/CATG
2/1	**MEETING/ WORKSHOP ON ATM, AIM AND MET COORDINATION** That, in preparation of the Meeting/Workshop on ATM/AIM/MET Coordination (May 2016), and in order to promote coordination to improve safety during natural events with major aviation impact, States of the CAR Region and COCESNA provide information on coordination among ATM, AIM and MET services to the ICAO NACC Regional Office by 28 December 2015.	Provide information for workshop Conduct Workshop	CAR States and COCESNA ICAO NACC Office	28 Dec 2015 May 2016	AIM Committee noted and will coordinate
2/2	**COORDINATION FOR UPDATED VERSION OF THE ICAO WRC-2015 POSITION** That in order to ensure an effective coordination for the support of the ICAO Position for WRC-2015 considering the update of this position by ICAO NAM/CAR States:				E/CAR States/ Territories to support. Updates to be provided to CNS Committee.
	a) timely coordinate that this update of the ICAO Position is shared with their national Spectrum regulators; and	Coordination with National Spectrum Regulator	NAM/CAR States	August 2015	
	b) attend as possible, with their National Spectrum Regulators to attend the last 2015 Regional CITEL (Ottawa, Canada, August 2015) and vote for the Interamerican proposals related with the ICAO position	Attendance to last 2015 Regional CITEL (Ottawa, Canada)	NAM/CAR States	August 2015	
2/3	**IMPROVEMENT OF THE EFFECTIVENESS OF THE PBN TASKFORCE** That, in order to improve the effectiveness of the PBN Task Force, CAR States:				
	a) update the PBN Taskforce PoCs information by June 30 2015; and	Update PBN TF PoC	CAR States/Territories	30 June 2015	
	b) provide the appropriate resources to the nominated members of the taskforce in order for them to participate in Telcons/Web meetings, attend meetings/training events and contribute to group activities.	Provide resources to PBN TF PoC	CAR States/Territories	ANI/WG/3	

Number	Conclusion/Decision	Deliverable	Responsible for action	Deadline	Follow-up by E/CAR/CATG
2/4	**REPORTING OF FUEL SAVING INITIATIVES** In order to quantify the effectiveness of proposed PBN initiatives within the CAR Region				E/CAR States will designate PoC for the task
	a) PBN Task Force in coordination with IATA, submit to ICAO by 30 June 2015 the final version of the form to report fuel saving from PBN initiatives;	Submit final fuel saving form	PBN Task Force	30 June 2015	
	b) ICAO NACC Regional Office to submit States/Territories this reporting form that is capable of reflecting predicted fuel savings resulting from proposed PBN initiatives by 30 July 2015;	Submit fuel saving reporting form	ICAO NACC Regional Office	30 July 2015	
	c) CAR States/Territories submit information relating to predicted fuel savings based on proposed PBN implementation in the agreed to standardized format every 6 months, as applicable; and	Submit fuel saving form complete	CAR States/Territories	Every 6 months	
	d) PBN Task Force to collaborate with IATA re validation of information received from States.	Revalidate and process information	PBN Task Force	Every 6 months	
2/5	**THE IMPROVEMENT OF THE EFFECTIVENESS OF THE ATFM TASK FORCE** That, in order to improve the effectiveness of the ATFM TF, CAR States/Territories				Noted by ATM Committee and action has been taken
	a) update the POCs for the ATFM TF by 31 July 2015;	Update ATFM TF PoC	CAR States/Territories	31 July 2015	
	b) provide to the members of the taskforce nominated the appropriate time and resources in order to participate in Telcons/GoTo Webinars and attend meetings/training events that contribute to ATFM; and	Provide resources to ATFM TF PoC	CAR States/Territories	ANI/WG/3	
	c) based on the ATFM TF work programme, report their current ATFM implementation status by 14 August 2015.	Inform ATFM implementation progress	CAR States/Territories	14 August 2015	
2/6	**AIDC IMPLEMENTATION CHECKLIST** That, in order to support the implementation of AIDC, States/Territories in the CAR Region, adopt the attached AIDC Implementation checklist (Appendix E refers) as a guidance for planning and implementing AIDC service.	Adopt AIDC Implementation Checklist	CAR States/Territories	ANI/WG/3	Noted

Number	Conclusion/Decision	Deliverable	Responsible for action	Deadline	Follow-up by E/CAR/CATG
2/7	**AIDC IMPLEMENTATION AND MONITORING** That in order to accurately monitor and report the operational benefits and implementation progress as well as to facilitate the harmonious AIDC implementation:				Noted
	a) the ICAO NACC Regional Office upload the AIDC Regional Implementation Plan into the ANI/WG Webpage;	Upload AIDC Regional Implementation Plan into ANI/WG Webpage	ICAO NACC Office	Upon approval of ANI/WG/02 report	
	b) the NAM/CAR States/Territories review and inform the AIDC TF and ICAO of any update to the AIDC Regional Implementation Plan by the ANI/WG/03 Meeting; and	Review and report updates to AIDC Regional Implementation Plan	NAM/CAR States	ANI/WG/3	
	c) the AIDC TF track the implementation progress of AIDC as shown in the AIDC Implementation Performance Indicator, including operational benefits information by the ANI/WG/3 Meeting.	Track AIDC implementation progress	AIDC TF	ANI/WG/3	
2/8	**AIDC PLANNING IMPLEMENTATION** That, in order to promote the planning of successful AIDC implementation the CAR States/Territories update the status of their FPL System and the dis-use of converters (Appendix F refers) by ANI/WG/03 Meeting.	Update status of FPL system and converters	CAR States/Territories	ANI/WG/3	E/CAR States/ Territories to update as possible. CNS Committee to follow-up
2/9	**PROVISION OF FPL SUPPLEMENTAL INFORMATION** That, in order to control and ensure the provision of FPL supplemental information the CAR States/ANSPs establish agreements with operators to provide FPL supplemental information to the ANSPs when needed, and the complete contact information be used at any time for this purpose, or to provide this information for each flight plan by means of the local dispatch office. The agreement to provide the information on demand would only apply to those operators that have 24/7 availability of personnel to attend the request.	Provision of FPL supplemental Information	CAR States/Territories	ANI/WG/03	Take note

Number	Conclusion/Decision	Deliverable	Responsible for action	Deadline	Follow-up by E/CAR/CATG
2/11	**ADS-B/MLAT SURVEILLANCE PLAN** That, in order to support the implementation of ADS-B and MLAT in the CAR Region:				Review and report update to ADS-B TF in coordination with CNS Committee
	a) the Surveillance System Plan (Appendix K refers) be taken as a reference for the planning and implementation of MLAT and ADS-B systems; and	Take Surveillance System Plan as reference	CAR States/Territories	ANI/WG/03	
	b) States/Territories in coordination with ICAO to update this plan by 20 December 2015.	Update Surveillance System Plan	CAR States/Territories	20 December 2015	
2/12	**ADS-B IMPLEMENTATION REFERENCE DOCUMENTATION** That in order to support and guide implementation of ADS-B in the CAR Region and to achieve regional milestone date of December 2018 for the implementation of ADS-B OUT:				Take note
	a) the Regional ADS-B CONOPS document version 1.0 be adopted as a guide to planning and implementation of ADS-B service to the States/ANSPs in the region; and	Take as reference the ADS-B CONOPS document	CAR States/Territories	December 2018	
	b) Technical Specification document be adopted as a guide for the acquisition and implementation of ADS-B service.	Take Technical Specification document as a guide	CAR States/Territories	December 2018	
2/13	**DATA PROCESSING CAPABILITIES FOR ADS-B** That in order to follow-up and guide the ADS-B implementation in the CAR Region, and to achieve the regional milestones by December 2018 for ADS-B Out implementation:				E/CAR States/ Territories to confirm these capabilities. CNS Committee to follow-up
	a) the ADS-B Data Processing Capabilities Table (Appendix L) be adopted as a guidance on the status of the ATS Automation System to process ADS-B data; and	Take ADS-B Data Processing Capabilities Table as guiudance	CAR States/Territories	December 2018	
	b) CAR States/Territories to confirm these capabilities to ICAO by December 2015.	Inform Status of ADS-B Data Processing capabilities	CAR States/Territories	December 2015	

Number	Conclusion/Decision	Deliverable	Responsible for action	Deadline	Follow-up by E/CAR/CATG
2/14	**ADS-B TRIALS KICK OFF IN CAR REGION** That, in order to promote ADS-B implementation States/Territories that have not yet conducted trials coordinate the implementation/planning test of ADS-B with ADS-B TF in order to obtain the operating benefits identified.				E/CAR States/ Territories to inform and CNS Committee to follow-up
2/15	**AERODROME MAPPING DATA BASE (AMDB)** That States/Territories/International Organizations:				E/CAR States/ Territories and AIM Committee to follow-up
	a) take into account the applications based on the aerodromes data publication, including the new air-ground collaborative systems applying SWIM principles according with ASBU dates for Block DATM (AIM);	Take into account the applications based on the aerodromes data publication	NAM/CAR States/Territories	ANI/WG/3	
	b) accelerate the adoption of aerodrome mapping databases provision and maintain close coordination with other Aeronautical Authorities related with the implementation of the AMDB; and	Accelerate the adoption of aerodrome mapping databases provision and maintain close coordination with other Aeronautical Authorities	NAM/CAR States/Territories	ANI/WG/3	
	c) participate in the Terminal Procedures and Aerodrome Mapping Seminar to be held at the ICAO NACC Regional Office, Mexico City, Mexico, 24 to 28 August 2015.	Participate in the Terminal Procedures and Aerodrome Mapping Seminar	NAM/CAR States/Territories	24 August 2015	
2/16	**PROCEDURES FOR AIR NAVIGATIONS SERVICES (PANS) – AERONAUTICAL INFORMATION MANAGEMENT (AIM)** That States/Territories:				E/CAR States/ Territories and AIM Committee to follow-up
	a) review the draft version of the mentioned document as shown in Appendix to IP/09; and	Review document on PANS-AIM	NAM/CAR States/Territories	31 December 2015	
	b) send to ICAO NACC Regional Office their comments no later than 31 December 2015.	Send comments	NAM/CAR States/Territories	31 December 2015	

Number	Conclusion/Decision	Deliverable	Responsible for action	Deadline	Follow-up by E/CAR/CATG
2/17	**AMHS IMPLEMENTATION PROCESS IN THE CAR REGION** That in order to streamline the implementation of AMHS Systems, CAR Region States/ANSPs				Done: Trinidad and Tobago update provided by CNS Committee
	a) update accordingly the CAR Region Implementation Matrix by 31 Dec 2015; and	Update CAR Region Implementation Matrix	CAR States/ANSPs	31 Dec 2015	E/CAR States/ Territories to participate in workshop
	b) participate in the ATN Application Workshop (2016, Sint Maarten) to exchange information and advance the implementation.	Participate in workshop	CAR States/ANSPs	2016	
2/18	**CPDLC/ADS-C IMPLEMENTATION GUIDANCE AND CONSIDERATIONS** That, in order to support the implementation of CPDLC, ADS-C, the States/Territories involved adopt as references the CPDLC Implementation Considerations; and a CPDLC/ADS-C implementation Action Plan shown in Appendix O and Appendix P, respectively.	Adopt as references the CPDLC Implementation Considerations; and a CPDLC/ADS-C implementation Action Plan	CPDLC/ADS-C involved States-ANSPs	December 2018	Trinidad and Tobago update provided by CNS Committee
2/20	**ADOPTION OF NEW ANRF AND REPORTING APPROACH TO ASBU IMPLEMENTATION** That, in order to provide a straightforward tool for States/Territories/International Organizations to determine their operational air navigation improvements:				Noted on E/CAR/CATG/02
	a) NAM/CAR States/Territories to review and adopt the proposed new ANRFs for application by June 2016 (Appendix R);	adopt the proposed new ANRFs	NAM/CAR States/ Territories and ANSPs	June 2016	
	b) NAM/CAR States/Territories to assess their status of implementation and report to ICAO NACC Regional Office by 30 July 2016; and	Assess implementation Status	NAM/CAR States/ Territories	July 2016	
	c) ICAO to organize by the first semester of 2016 a hands-on ANS/ASBU ANRF workshop for the use and understanding of the new ANRFs with the participation of CANSO, IATA , Civil Aviation Training Centers and air navigation planning experts.	Organize ASBU ANRF workshop	ICAO	First semester 2016	

APPENDIX C
FOLLOW-UP TO ANI/WG/2 CONCLUSIONS

The main activities conducted by the ATM Committee are as follows:

- Updating the E/CAR ATM Committee's Points of Contact (POC)
- Review of PBN activities/initiatives within the E/CAR area
- Review of ATS Coordination activities among VC Bird APP, Princess Juliana APP, San Juan CERAP and Piarco ACC
- Updates on the Caribbean and North Atlantic Regional Supplementary Procedures (Doc 7030) amendment submission
- Review of ATS Letters of Agreement (LOAs)
- Operational use of CPDLC and ADS-C in the E/CAR area
- Operational assistance for Argyle Airport Commissioning in Saint Vincent and the Grenadines (SVG)
- Other ATM Committee Tasks

Based on the focus of the ICAO NACC Office and guidance from the RO/ATM/SAR, the ATM Committee took part in the following discussions:

Follow-up to Valid Conclusions from the E/CAR/CATG/1 Meeting
Follow-up to Valid Conclusions/Decisions from the ANI/WG/2 Meeting
Follow-up to Valid Conclusions from the E/CAR/CATG/2 WP08, WP15, WP17 and IP03

Attachment A provides information on the ATM Committee's POC

Attachment B provides detailed information on those discussions

STATE	MEMBER/S	E-MAIL ADDRESS	TEL / CELL / FAX
Antigua and Barbuda	**Shenneth Phillips (E/CAR Chairman)** ATS Operations Officer VC Bird Int'l Airport, Antigua & Barbuda	catsvcbird@yahoo.com shennethp@yahoo.com	T + 1 268 562 0301
	Lorraine Davis ATS Examining Officer, VC Bird Int'l Airport, Antigua & Barbuda	sivad81@hotmail.com	T + 1 268 562 0302
Barbados	**Samuel Philgence** Unit Chief Air Traffic Services, Barbados Civil Aviation Department	samuel.philgence@bdos.gov.bb ucats@caribsurf.com	T + 1 246 428 7377
	Dianne H Skeete Chief Air Traffic Control Officer Barbados Civil Aviation Department	catco@caribsurf.com dianne.skeete@barbados.gov.bb	T + 1 246 428 6667
France	**Jean Michel Pubellier** ATM Manager, Deputy Director French Civil Aviation Directorate Air Navigation Services Antilles-Guyana	jean-michel.pubellier@aviation-civile.gouv.fr	T +596 596 422 488
Dominica	**Honica Lawrence** Senior Air Traffic Controller Dominica Air and Sea Ports Authority	ms_lawrence@hotmail.com	T + 767 445 7101 F + 767 445 7405
	Jean Williams Airport Manager Dominica Air and Sea Ports Authority	Melvillehallairportmanager.daspa@cwdom.dm	T + 767 448 4431 T + 767 445 8469
Grenada	**Roselyn Charles** ATS Manager	rcharles@mbia.grenada.com	T + 1 473 444 4148 /534 5219
	Willard De Allie	wdealie@mbiagrenada.com	T +1 473 534-5247
Netherlands (Saba and Sint Eustatius)	**Robin Valkenburcht**	robin.valkenburcht@minvenw.nl	T + 31 70 456 7492
Saint Kitts and Nevis	**Daron Sutton**	deltas74@hotmail.com	
	Kurt Louard	kurt.louard@scaspa.com	
Saint Lucia	**Lambert Remy** M-ATS, St Lucia Air & Sea Ports Authority	lambert.remy@slaspa.com	T + 1 758 457 6116 (M) 1 758 728 4869

STATE	MEMBER/S	E-MAIL ADDRESS	TEL / CELL / FAX
Saint Vincent and the Grenadines	**Corsel Roberts** Airport Manager	airportsdep@gmail.com	
Trinidad and Tobago	**Ian R Gomez** Unit Chief ANS Safety	igomez@caa.gov.tt	T + 1 868 669 4806 M + 1 868 788 8284 F + 1 868 669 0635
	Dayanand Rajnath Unit Chief ACC & APP Technical	drajnath@caa.gov.tt	T + 1 868 669 4806 M + 1 868 788 8284 F + 1 868 669 0635
	Curtis Peters Unit Chief ACC & APP Operations	cpeters@caa.gov.tt	T + 1 868 669 4806 M + 1 868 788 8284 F + 1 868 669 0635
United States	**Jorge Chades** Oceanic & Offshore Air Traffic Procedures Specialist, Caribbean & South America	jorge.a.chades@faa.gov	T + 1 202 267 0509
	Raul J Chong International Programme Officer for Americas & ICAO Group	raul.chong@faa.gov	T + 1 202 267 0999
	Dan Eaves Requirements and Validation for En Route and Oceanic Projects AJV-724	dan.eaves@faa.gov	T +1 202-267-4726
ECCAA (Antigua & Barbuda, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines)	**Charles Anthony Meade** Acting Director, Air Navigation Services Eastern Caribbean Civil Aviation Authority	ameade@eccaa.aero contact@eccaa.aero	T + 1 268 462 0000

CONCLUSION	TEXT	FOLLOW-UP	STATUS
DECISION 1/6 **E/CAR PBN IMPLEMENTATION PLAN**	That to consolidate and complete the Regional E/CAR PBN Implementation Plan: the ATM Rapporteur follow-up on the submission of National PBN Implementation Plans from Netherlands and United Kingdom Territories; ECCAA follow-up on the submission of the National PBN Implementation Plans from the rest of the OECS (e.g, Dominica, Saint Kitts and Nevis and Saint Lucia); the ATM Committee provide feedback to Antigua and Barbuda concerning their National PBN Implementation Plan by 31 August 2013; the E/CAR States and Territories take note of Trinidad and Tobago PBN initiatives (E/CAR/CATG/1-IP/07) and that those States/Territories requiring assistance in understanding the PBN airspace concept make use of Trinidad and Tobago's expertise; and the ATM Committee present the revised E/CAR PBN Implementation Plan to the E/CAR/DCA/25 Meeting.	Based on the refocus of the ICAO NACC Office from Planning to Implementation and guidance from the ATM & SAR RO, Decision 1/6 has now been superseded with the rewording of the E/CAR PBN Implementation Plan to the **E/CAR PBN Implementation Project** and the following decisions have been made: Members with the E/CAR States are to form Regional PBN Airspace Design Team whose focus will be to harmonise the En-Route and Terminal airspaces within the E/CAR Region in accordance with the Piarco FIR PBN Airspace Redesign Concept. Trinidad and Tobago begin CDM with the adjacent En-Route ANSPs to harmonise a Regional PBN Airspace Redesign Concept. States/Territories inform the ATM and ANI/WG PBN Rapporteurs of those persons selected for the PBN Airspace Design Team. This Team is part of and will operate in harmony with the ANI/WG PBN TF. States/Territories are urged to state their interest to the PBN ANI/WG Rapporteur in attending a Regional PBN Workshop carded for November 2015. The ATM Committee to present an update on the E/CAR PBN Implementation Project to E/CAR/DCA/26 Meeting. The ATM Committee was informed that there is going to be an ATFM Workshop in November 2015. States/Territories are required to state their interest in attending by 28 July 2015.	**E/CAR PBN Implementation Plan Superseded by E/CAR PBN Implementation Project** **SUPERSEDED**

CONCLUSION	TEXT	FOLLOW-UP	STATUS
DECISION 1/7 **PBN TASK FORCE**	That in order to propel PBN implementation activities in the E/CAR based on the E/CAR PBN Implementation Plan, a PBN Taskforce under the lead of the ATM Committee be activated with participation of ATM, AIM and CNS specialists and the ATM Committee Rapporteur to: coordinate with the AIM and CNS Committees for designation of personnel to participate in the PBN Task Force; prepare the PBN Task Force Terms of Reference (ToRs) and work programme; report the results of a) and b) to the E/CAR/CATG Chairman by 30 July 2013; and present PBN Task Force progress to the E/CAR/DCA/25 Meeting.	Based on the directives of the E/CAR/DCA/25 Meeting these items have been considered Completed for the ATM Committee as they are superseded by the formation of the ANI/WG PBN Task Force. The following decisions have been made by the ATM Committee: Outstanding States/Territories for representatives on the ANI/WG PBN Task Force: French WI, Grenada, St Kitts and St Maarten SVG, and Dominica to inform the ANI/WG PBN Rapporteur (rmohammed@caa.gov.tt) of those persons selected for the ANI/WG PBN Task Force.	**COMPLETED**

CONCLUSION	TEXT	FOLLOW-UP	STATUS
CONCLUSION 1/8 **E/CAR PBN TRAINING APPROACH**	That in order to streamline E/CAR PBN implementation with a phased training approach: E/CAR States and Territories take advantage of the available PBN online web training to improve PBN awareness for certain stakeholders (e.g. ATCOs, Air Operators, Managers); E/CAR States and Territories designate, with the assistance of the ATM Committee, personnel for the formation of State Core and Auxiliary PBN Teams; the ATM Committee, in coordination with E/CAR States and Territories, continue to consider the option of IATA's "In Group" PBN Training for more structured PBN training; the ATM Committee report the progress of these training approach activities to the E/CAR/DCA/25 Meeting; and	The ATM Committee was informed of the following: Trinidad and Tobago intends to host a PBN Workshop in November 2015. States/Territories are to state their interest in attending the Regional PBN Workshop carded for November 2015 by 28 July 2015. Based on the information presented in a) and b) above, the following decisions have been made by the ATM Committee: in preparation for the Regional PBN Workshop, States/Territories are urged to make effective use of ICAO online PBN training available on the website (http://www.icao.int/Training/Pages/coursecategory.aspx) as this training should be adequate prerequisite for participants of the respective National Core Teams. the ANI/WG PBN Rapporteur is to send information on the PBN Workshop Objectives to the E/CAR States/Territories at least two months (September 2015) before the scheduled start of the Workshop, and the ATM Committee report on the progress of these training approach activities to the E/CAR/DCA/26 Meeting.	**SUPERSEDED**

CONCLUSION	TEXT	FOLLOW-UP	STATUS
DECISION 1/9 **ATS COORDINATION IMPROVEMENTS BETWEEN V. C. BIRD APP, PRINCESS JULIANA APP, SAN JUAN ACC AND PIARCO ACC**	That in order to resolve and improve ATS coordination between V. C. Bird APP, Princess Juliana APP, San Juan ACC and PIARCO ACC that the ATM Committee Rapporteur, in coordination with the United States, Saint Maarten and Antigua and Barbuda: continue as lead to get a response on the coordination proposals mentioned in E/CAR/CATG/1-WP16 report the progress to the E/CAR/CATG Chairman for final reporting to the E/CAR/DCA/25 Meeting.	The ATM Committee to note of the following: During the Quadrilateral ATC Coordination and Radar Data Sharing Meeting held in San Juan, Puerto Rico (19-20 March, 2015), there was the finalising and signing of the MOU which took effect from **04 May 2015**. Feedback attained from the concerned States/Territories on the Monitoring Phase has provided positive results.	**COMPLETED**
CONCLUSION 1/10 **UPDATE TO ATS LETTERS OF AGREEMENT**	That in order to streamline updating of all E/CAR ATS Unit LOAs: E/CAR State and Territory ATS Units review and inform the ATM Committee of the status of validity and accuracy of their ATS LOAs; the ATM Committee coordinate and identify those States and Territories whose LOAs need updating for reasons of relevancy, clarity, safety and efficiency in the provision of respective ATS to aircraft operations; and the E/CAR/CATG Chairman report to the E/CAR/DCA/26 Meeting the status and update progress of the ATS LOAs.	The ATM & SAR RO advised the ATM Committee that the main focus should be airspace redesign. The ATM Committee after careful consideration decided on the following: to work towards achieving the LOA and PBN activities simultaneously.	**VALID**

CONCLUSION	TEXT	FOLLOW-UP	STATUS
CONCLUSION 1/11 PROPOSAL FOR AMENDMENT TO DOC 7030 FOR 50NM LONGITUDINAL SEPARATION MINIMA IN THE NEW YORK FIR AND OCEANIC CONTROL AREA	That in order to complete the proposal for amendment to Doc 7030 for 50NM longitudinal separation minima in the New York FIR and Oceanic Control area: the E/CAR States and Territories support the proposal for amendment to ICAO Doc7030 - CAR/Region Supplementary Procedures, part CAR and NAT Regions, as stated in WP/17; and United States submit this amendment to the ICAO NACC Regional Office for coordination and approval as established in Doc 7030.	Based on comments provided by ICAO ATM & SAR RO concerning the redesign of the New York FIR, the ATM Committee decided that this Item needs to be reviewed.	**VALID**
CONCLUSION 1/12 OPERATIONAL USE OF CPDLC AND ADS-C IN THE E/CAR	That in order to prepare for implementation of 50NM longitudinal separation minima in the New York FIR and its application in the E/CAR: a) Trinidad and Tobago analyze and identify the necessary actions for the operational use of CPDLC and ADS-C in the PIARCO FIR, including the necessary automated system adjustments and associated ATS procedures; b) the ATM Committee develop and coordinate the necessary proposal for the inclusion of CPDLC and ADS-C in the corresponding sections of ICAO Doc 7030 – CAR Region Supplementary Procedures by 30 October 2013; and c) Trinidad and Tobago and the ATM Committee inform the E/CAR/CATG Chairman of the progress of a) and b) for corresponding report to the E/CAR/DCA/25 Meeting	The ATM Committee decided that: T&T and USA to have collaborative CPDLC and ADS-C talks at least three months prior to December 2015. This Meeting will occur after Trinidad and Tobago hosts the ADSC and CPDLC Go-Team in October 2015.	

CONCLUSION	TEXT	FOLLOW-UP	STATUS
CONCLUSION 1/13 OPERATIONAL ASSISTANCE FOR ARGYLE AIRPORT COMMISSIONING IN SAINT VINCENT AND THE GRENADINES	That considering that the new Argyle Airport will be commissioned in 2014: the PBN Task Force (PBNTF) carry out an operational evaluation of impact to regional operations aiming to provide assistance for the commissioning; Saint Vincent and the Grenadines and ECCAA keep the E/CAR/CATG informed on the implementation status of the Argyle Airport; and the PBNTF, Saint Vincent and the Grenadines and ECCAA report the results of a) and b) to the E/CAR/DCA/25 Meeting	The ATM Committee agreed on the following: St Vincent and the Grenadines (SVG) and ECCAA keep the E/CAR/CATG informed on the implementation status of the Argyle Airport; and SVG continues with the CDM process with its neighbouring States and Trinidad and Tobago so that the necessary assistance can be provided where required. States/Territories to inform ICAO of their concerns regarding the level of official CDM taking place and timelines being relayed to adjoining States. The AGA, AIM, ATM, CNS, SAR Committees and ECCAA therefore suggest that as a matter of urgency, the ICAO NACC Office contact SVG to determine the maturity of the ANS Implementation Project and if assistance would be required effectively move the ANS Operations forward	**VALID**

CONCLUSION	TEXT	FOLLOW-UP	STATUS
ANI/WG CONCLUSION/DECISIONS (ANI/WG/2 Meeting)			
ANI/WG2 CONCLUSIONS AND DECISIONS	That the ATM E/CAR Committee reviewed the following ANI/WG2 Conclusions/Decisions: 2/1, 2/3, 2/4, 2/5, 2/6, 2/7, 2/11, 2/13, 2/14, 2/18 and 2/20	The ATM E/CAR Committee is in concurrence with these Conclusions/Decisions.	
E/CAR/CATG/2 MEETING			
E/CAR/CATG/2 WP17 TRINIDAD AND TOBAGO ATFM PROGRESS REPORT	The ATM Committee is to take note and urge E/CAR States of the following: actively participate in the NAM/CAR ANI/WG ATFM Taskforce activities; attend the ATFM/CDM workshop being hosted by Trinidad and Tobago; send to Piarco ACC relevant operational information that would affect the flow of air traffic; review and publish aerodrome capacity; assess the revised electronic ATFMU Daily Reporting Form	The ATM Committee is in agreement with activities a), b), c) and d). The following States/Territories should be included in the new ATFMU Daily report Form: TKPN TLPC TDCF TDPD It is suggested that in the new electronic form should include as an Appendix, a list of the various information expected to be included in the column "Other Information"	

CONCLUSION	TEXT	FOLLOW-UP	STATUS
E/CAR/CATG/2 WP15 **NAM/CAR PBN TASK FORCE** **REPORT**	The following recommendations were noted: An E/CAR Airspace Design Team involving States/Territories having responsibility for the TMAs within the Piarco FIR and Trinidad and Tobago, be created within the Region. Committee to collaborate on the re-design; Those States/Territories which are currently not part of the NAMCAR PBN Taskforce are encouraged to join and participate in activities and discussions. Nominees can be emailed to the PBN taskforce rapporteur; and E/CAR States/Territories are encouraged to consider the proposal by Trinidad and Tobago to host a PBN workshop/training seminar in November 2015.	The E/CAR States have considered the proposal in c) and have expressed interest in attending the PBN Workshop. That the E/CAR States/Territories indicate their interest to attend the PBN Workshop by 28 July 2015 to the ANI/WG PBN Rapporteur (rmohammed@caa.gov.tt). That E/CAR States update/nominate POCs for the PBN TF and submit to the ANI/WG PBN Rapporteur 28 July 2015. The E/CAR States/Territories who are willing to be part of the Airspace Design Team do so by 28 July 2015.	

CONCLUSION	TEXT	FOLLOW-UP	STATUS
E/CAR/CATG/2 IP03 INFORMATION, LIMITATIONS, PROCEDURES, PHRASEOLOGY AND AIC-FORMAT GOVERNING THE IMPLEMENTATION OF RADAR-ASSISTED SITUATIONAL AWARENESS (RASA) IN THE OECS	The ATM Committee noted the following conclusion: The OECS States have a guidance and reference document on situational awareness for the best and appropriate use of the equipment that is being donated by France as future equipment to be implemented for this purpose	The ATC Committee agreed on the following: Acquisition by States of permanent display systems for medium term continuation of RASA (as decided by States) or upgrade to full Radar Control. Equipment Training is to be provided for controllers in Saint Vincent and the Grenadines. St. Kitts and Nevis has to get additional Equipment Training. The Committee also noted the following: ATCOs from Saint Lucia will be trained by SNA/AG in Saint Lucia from mid-August 2015 over a period three (3) weeks. Six (6) training sessions will be conducted for a total of 30 ATCOs in equipment-operation, and in compliance with the ECCAA requirements for Radar Assisted Situational Awareness (RASA). That training should qualify ATCOs to use the radar displays for situational awareness. In the future, instructor-training will be provided to a number of St Lucia ATCOs using the simulator in Martinique.	**VALID**

APPENDIX D
AIM IMPLEMENTATION

Implementation of a PIARCO AIS/NOTAM Contingency Plan

1.1   Curaçao and Trinidad and Tobago have signed a Letter of Intent (LoI) to develop a NOTAM contingency plan for the Eastern Caribbean States and Curaçao. The Plan will be achieved using the services of IDS North America. IDS North America has a NOTAM software package in both States called SPATIA. A technical proposal has been submitted by IDS North America and the Trinidad and Tobago Civil Aviation Authority (TTCAA), CNS and AIM areas are currently evaluating the proposal. The Directorate of the TTCAA is committed to achieving this goal. This project is expected to be completed by the first quarter 2016.

Implementation of a Quality Management System (QMS= for AIS in the Eastern Caribbean

1.2   During the discussion on the transition from AIS to AIM the Ad hoc Group took note of WP/12 presented by Saint Lucia, which recognized the limitations of some States in terms of Human resources, and which proposed the implementation of a single QMS for the Region. The group also recalled that a similar proposal had been made at the AIM Familiarization Workshop convened in Trinidad and Tobago in 2014. The group agreed that there was merit in the proposal and that further research was needed to determine its viability. It must be emphasized that this conclusion does not absolve E/CAR States from their obligations to comply with Annex 15 – *Aeronautical Information Services*, requirement for a QMS; it simply seeks to eliminate the burden of acquiring individual ISO 9001 2008 certification.

Central Flight Planning Unit

1.3   Following extensive investigations on the problem of missing and duplicate flight plans carried out by the E/CAR AIS Committee, a centralized flight planning system was identified as a possible solution. The system has been installed in Trinidad and Tobago and is ready for Regional implementation. The system was pre-tested during February-March 2015, and the results were submitted to the software provider for analysis.

1.4   The system is intended to be implemented during the third quarter of 2015. An AIC will be submitted to inform all the changes to the corresponding procedures involved, addressing the following:

- A single Aeronautical Fixed Telecommunication Network (AFTN) address would be used to address all FPLs within the PIARCO FIR.
- The Central Flight Planning System (CFPS) would analyse the FPL and automatically address it to the appropriate States within the PIARCO FIR only.

Electronic Terrain and Obstacle Data (eTOD)

1.5   The group was informed that there is an Electronic Terrain and Obstacle Data (eTOD) Seminar scheduled for November 2015 in Mexico City. The group recalled that since the Thirty-Third Eastern Caribbean Working Group Meeting (ECAR/WG/33), the AIM Committee identified eTOD as an area for desired training. This comment then caused the discussion to naturally turn into training needs and the group identified the following:

Training needs for AIM in the Eastern Caribbean

1.6   Considering the requirements of the *Port-of-Spain Declaration* (POS), there is an urgent need for QMS training; In fact, the group concluded that there is a need for an advanced AIM Course for Senior AIS Officials in the Region. Only basic AIS training that addresses entry level needs is available. Further, the group recommends that Civil Aviation Training Centres in this Region acquire/develop the competencies to provide training in the areas of QMS, eTOD, Aerodrome Mapping, ASBU, System Wide Information Management (SWIM), among others. As a result of the AIM Familiarization Workshop held in Trinidad and Tobago (September/October 2014), the participants identified the need for more training for AIS Personnel.

AIM action plans for the AIS to AIM transition (Conclusion NACC/WG 4/7)

1.7   Under this item, the Ad hoc group considered the required target of 100% implementation of Phase 1 of the transition from AIS to AIM set by the POS maybe out of reach for the Eastern Caribbean, based on the current status of AIS in the Region. The States represented in the Ad Hoc Group reiterated their Country's commitment to develop AIS in line with the requirements of Annex 15 – Aeronautical Information Services, but yet they have not accomplished this goal. Saint Lucia indicated that between their two Airports they had a total of three trained AIS Officers assisted by six clerks. Dominica has two trained and one who is not yet trained. Antigua reported excellent progress where a structure consisting of a manager, 2 supervisors and 6 AIS Officers was at an advanced stage.

— — — — — — — — — — —

APPENDIX E
AGA IMPLEMENTATION

CAR – AERODROME CERTIFICATION IMPLEMENTATION PLAN (CRACIP)

In the E/CAR area there are 34 international aerodromes of which 20 are certified, which is equivalent to the 59%. Although this is above of the 48% requirement established in Safety Target 4 of the *Port-of-Spain Declaration*, the obligation is on the CAR region as a whole and the percentage of certified aerodromes in the CAR region is 33%. The goal of the ECAR region should be 100% certification. The following states still require aerodrome certification:

- Antigua and Barbuda – 1
- Dominica – 2
- Grenada – 2
- Saint Kitts and Nevis – 2
- St Lucia – 2
- St Vincent and the Grenadines – 5

The Organization of Eastern Caribbean States (OECS) involved should ensure that the regulatory framework is established to allow the aerodromes certification for international use in accordance with Annex 14. This is also a requirement of the ICAO Universal Safety Oversight Audit Programme (USOAP) for AGA.

Training

ICAO in collaboration with the FAA conducted an Aerodrome Inspectors Workshop in June 2014. This workshop was hosted by Trinidad and Tobago and was planned as part of the CAR/SAM Regional Planning and Implementation Group (GREPECAS) Aerodromes Programme (GREPECAS Project F1) to address aerodrome certification process-related activities. The main objective of the workshop was to provide participants aerodrome certification procedures. The workshop was coordinated by the ICAO NACC Regional Officer, Aerodromes, Air Routes and Ground Aids (AGA) and the AGA Committee Rapporteur.

The additional identified training and to be coordinated with the ICAO NACC-RO/AGA is the following:

- Aeronautical Studies: This is essential for the certification process of the existing aerodromes that cannot fully comply with the Standards and Recommended Practices (SARPs) of Annex 14. This should also include training in the risk assessments execution.
- Training on the recently released PANS-AGA

Runway Safety Team (RST)

From the discussion on RST at the Twenty-Fifth Directors of Civil Aviation of the Eastern Caribbean Meeting (E/CAR/DCA/25), two of the critical safety issues remain to be Runway Excursions (RE) and Runway Incursions (RI). The events related to runway safety include the following accidents categories: abnormal runway contact, bird strikes, ground collisions, ground handling, RE, RI, Loss of Control – Ground (LOC-G), collision with obstacles, and aerodrome Undershoot/Overshoot (USOS).

RSTs have identified hot spots through Safety Management System (SMS) risk management measures. In addition, RSTs have also helped to establish a coordination process through periodic meetings, as well as collaborative decision-making. Trinidad and Tobago has a RST functioning which meets monthly. All ECAR states are urged to establish RSTs.

New AGA Committee Action Plan

	Task Name	Start	Finish	Deliverable	Comments
1	**A) Aerodrome Certification**	**01/01/09**	**12/31/18**	Certification of aerodromes	
1.1	A1) Review GANDD deficiencies and develop solution plan for each State	06/21/10	07/31/16	Recommended remedial actions	
1.2	A2) Conduct aeronautical surveys, as needed	01/01/13	12/31/18	Aeronautical survey data. Provide training to States in the conduct of aeronautical studies	Aeronautical studies may not be conducted in cases of deviations from standards, if not specifically recommended in Annex 14, Vol. I.
1.3	A3) Development of aerodrome certification manuals	01/01/13	07/31/16	Guidelines on aerodrome certification manuals	Reference: ICAO guidelines in Doc 9774.
2	**B) Analyse new requirements for rapid exit taxiways to increase runway capacity**	01/01/09	12/31/18		
2.1	B1) Develop / review aerodrome layout plans	06/21/11	12/31/18	Guidelines on Aerodrome layout plans	
3	**C) Action plans implementation for runway incursion/excursion prevention**	05/01/13	12/31/15		
3.1	C1) Develop runway safety plans (as an element of the master aerodrome safety plan).	05/01/13	12/31/15	Guidelines on Master aerodrome safety plan containing a runway safety plan	

		Task Name	Start	Finish	Deliverable	Comments
3.2		C2) Establish Runway Safety Teams	05/01/13	12/31/15	Runway Safety Teams	Reference ICAO Runway Safety Team Handbook (2nd Edition 2015)
4		**D) Implement the Airport Capacity analysis, Enhancement and Planning procedure (ACE)**	01/01/09	12/31/16		
4.1		D1) Develop baseline aerodrome capacity levels (fair weather)	06/21/11	12/31/15	Baseline data	
4.2		D2) Assess aerodrome capacity in reduced weather conditions	06/21/11	12/31/15	Data as a function of weather conditions	
4.3		D3) Implement best management practices for operations in reduced weather conditions	06/21/11	05/31/16	Operational plan for irregular aerodrome operations	
5		**E) Minimizing adverse conditions effects on aerodrome operational capacity**	06/21/11	05/31/16		
5.1		E1) Identify current and emerging technologies that support communications and coordination during contingency planning	06/21/11	05/31/16	Master list of practices	
5.2		E2) Development of contingency plans for procedures pertaining to irregular aerodrome operations	06/21/11	12/31/16	Operational plan for irregular aerodrome operations	
6		**F) Implement Airport Collaborative Decision Making (CDM): Unpredictable reduction of capacity; turnaround and variable taxi times; and apron congestion**	01/01/10	12/31/16		

	Task Name	Start	Finish	Deliverable	Comments
6.1	F1) Review and measure aerodrome taxi and apron operations	01/02/12	12/31/16	Data on aircraft taxi and apron operations	
7	**G) Implementation of Advanced Surface Movement Guidance and Control System (A-SMGCS)**	09/01/15	012/31/18		
7.1	G1) Conduct a study on A-SMGCS requirements	09/01/15	05/31/16	Study completed.	
7.2	G2) Review existing ICAO and International SMGCS documents	09/01/15	05/31/16		Reference: ICAO Doc 9830: Advanced Surface Movement Guidance and Control Systems (A-SMGCS) Manual), ICAO SMGCS Manual Doc 9476-AN/927
7.3	G3) Develop draft A-SMGCS plan for aerodromes in the Region	09/01/15	12/31/16		

APPENDIX F
CNS IMPLEMENTATION
ADS-B/MLAT

Barbados: A contract was awarded to Selex ES for five (5) MLAT sensors for the airport and seven (7) Wide Area Multilateration (WMLAT) sensors to improve the North West (NW) sector of the Barbados Terminal Control Area (TMA). MLAT data may be eventually shared with the E/CAR surveillance data pool. The project has a target date of Q4 2015. Up to date initial software customization issues have been addressed with Barbados Air traffic Control (ATC) and Selex. The project is currently approaching the factory training and the testing stage is expected to be in early August 2015. It is estimated that the operator training phase can be carried out in December 2015.

ECCAA: Feasibility studies are underway in the OECS States toward the implementation of MLAT.

France: MLAT simulations carried out in Martinique and French Guyana led to the conclusion that MLAT was not an efficient solution to cover all the airspace for approach. France will acquire for French Guyana two Automatic Dependent Surveillance - Broadcast (ADS-B) receivers for trials in 2015, five receivers for control in 2016/2017 and one receiver in Martinique in 2016 for trials and work on the corresponding Concept of Operations (CONOPS).

Trinidad and Tobago: It acquired a DO 260A ADS-B receiver with an ATM system upgrade. The receiver and the associated antenna are installed. Initial trails were conducted and the data collected was analysed. Discussions have been initiated with a vendor for an ADS-B trial with a receiver at one (1) of the VHF high sites in addition to the one (1) at Piarco. One of the projects planned to be executed this year is the implementation of a combination of ADS-B/MLAT to provide surveillance in the south sector and ADS-B in the continental airspace of the Piarco FIR.

ADS-C and CPDLC

Trinidad and Tobago: Trials are underway for FANS1/A (ADS-C and CPDLC) services from ARINC.

San Juan: Trials have been successfully completed and ADS-C is fully implemented.

GNSS Augmentation

Trinidad and Tobago: SACCSA (*Sistema de aumentación para el Caribe, Centro y Sudamérica* – Augmentation System for the Caribbean, Central and South America) Project RLA/03/902 to analyse the technical, institutional and financial feasibility to implement Satellite Based Augmentation Systems (SBAS)/Global Navigation Satellite Systems (GNSS) system in the CAR/SAM regions has complete its execution with the study. The research has shown positive results. The next stage could be the analysis for future system implementation.

AMHS

The AMSS-TT system is currently functioning in AFTN mode. Cutover of the CADAS-ATS in the Eastern Caribbean States to AMHS has been revised to be completed by the third quarter of 2015.

The technical Letter of Agreement (LoA) for the AMHS systems interconnection with the FAA has been completed. The testing with the FAA began in February 2014. Cutover date has been revised to the third quarter of 2015. The transition to AMHS will be seamless to the network. The work that is required involves only configuration changes to the AMHS equipment.

Telecommunication Networks

E/CAR AFS Network: A project was undertaken with the E/CAR/AFS network service provider to improve the resiliency of the network and eliminate the single failure point. To mitigate the failure of the Mausica exchange, a redundant path was created from the TTCAA premises to the St. Augustine exchange. In the event of failure of the Mausica exchange, the E/CAR/AFS network will transfer automatically to the St. Augustine exchange. The failover time from the Mausica exchange to the St. Augustine exchange measured at the Acceptance Tests was of thirty (30) seconds. The design allows for the path to automatically revert when the Mausica exchange is normalized. The transfer from St. Augustine back to Mausica is instantaneous and seamless.

The International Private Leased Circuits (IPLC) which transports the French radar and the IPLC between Piarco and San Juan will not switch from the Mausica exchange to the St. Augustine exchange. The characteristics of IPLCs do not permit multiple mapping as compared to the metro-e circuits. In the short term, the integrated French radar (Dacota) was also installed on the E/CAR/AFS Network in Martinique, but requires a manual intervention at Piarco to connect it to the ATM system. Connectivity and services to San Juan will continue through the E/CAR/AFS Network via the redundant circuit between Antigua and San Juan.

MEVA-E/CAR Interconnection: The new dedicated MEVA circuit required for the radar exchange between San Juan and Sint Maarten, and the voice circuits to Anguilla, Antigua and St. Kitts is already installed. The interconnectivity would allow Sint Maarten to share their radar with Trinidad and Tobago as part of the radar feeds that will support the radar data server project to be implemented for the E/CAR States/Territories. To complete the voice circuit implementation in the MEVA III – CAR AFS Network interconnection the following is necessary:

a)   Trinidad and Tobago needs to install the replacement routers in Anguilla by July 2015;

b)   United States has to complete the wiring between the MEVA III and E/CAR AFS Node by 14 August 2015, after the routers in Anguilla are replaced; and

c)   For the testing, United States, Comsoft, TSTT, Trinidad and Tobago, Sint Maarten, Anguilla, St. Kitts and Antigua have to coordinate the corresponding actions.

AFISNET: ASECNA (*L'Agence pour la Sécurité de la Navigation aérienne en Afrique et à Madagascar* – Agency for Aerial Navigation Safety in Africa and Madagascar) made a proposal to Trinidad and Tobago and French Guiana for the deployment of AFISNET (African and Indian Ocean Satellite Network) VSAT stations to link the FIRs of Piarco and Cayenne to Dakar. To accelerate and simplify the coordination of such project, ASECNA proposed to defray the cost of providing and installing the VSAT stations, maintenance and related costs particularly the space segment. The installation started on 1 July 2015 and the delivery date is tentatively programmed to be in August 2015.

Radar Sharing with E/CAR

The installations of the IRMA computers have been completed for St. Vincent (January 27, 2015), Antigua (March 19, 2015), Grenada (April 17, 2015), Montserrat (May 18, 2015), Dominica (June 12, 2015), Barbados (June 18, 2015), St. Kitts (June 25, 2015) and Nevis (June 25, 2015). Anguilla will be scheduled after the routers are replaced.

APPENDIX G
EASTERN CARIBBEAN CIVIL AVIATION TECHNICAL GROUP COMMUNICATION,
NAVIGATION AND SURVEILLANCE COMMITTEE (CNS/COMM)
TERMIS OF REFERENCE

1. **Background**

a)   The Eastern Caribbean CNS Committee was originally established by the Eastern Caribbean Working Group (E/CAR/WG) which has been renamed the *Eastern Caribbean Civil Aviation Technical Group*. The CATG was established in October 2012 by the Directors of Civil Aviation of the Eastern Caribbean at their Twenty Fourth Meeting of Directors of Civil Aviation of the Eastern Caribbean (E/CAR/DCA/24) through Conclusion 24/7 – New NAM/CAR Air Navigation Implementation Working Group (ANI/WG), item (b) to continue the performance-based work programme for the implementation and improvement in all air navigation fields in the Eastern Caribbean.

b)   The CNS Committee should periodically update the Terms of Reference (ToR), the scope of the tasks of the Committee and the work programme which establishes the list of items to be analysed in accordance with the scope defined in the ToRs.

2. **Terms of Reference**

a)   Review and complete the CNS systems planning, in accordance with the CAR/SAM RPBANIP, on the results of the inter-regional planning and coordination and on ICAO SARPs and technical guidelines, and user expectations (Aviation System Block Upgrades (ASBU) Block 0 Modules) related with the coordinated implementation and harmonization of CNS/ATM systems.

b)   Follow up and actively support *Port-of-Spain Declaration* targets fulfillment.

c)   Facilitate operational improvement initiatives through action plans and implementation strategies and associated technologies to improve safety, increase operational and economic efficiency and/or regional CNS systems capacity.

d)   Share information on implementation initiatives to enhance interoperability of air traffic systems through CNS improvements.

3. **Work Programme**

3.1   See the enclosed project file.

4. **Working Methods**

a)   The CNS Committee of the E/CAR/CATG work programme should present their activities in terms of objectives, responsible and deliverables. Further details can be provided in the form of Work Breakdown Schedule (WBS).

b) The CNS/COMM will avoid work duplication within the E/CAR/NTG and maintain close coordination among the existing entities (like the ANI/WG) to optimize the use of available resources and experience.

c) The CNS/COMM may designate, as necessary, ad-hoc groups to work on specific topics and activities; all tasks and activities should be clearly defined by time and deliverables;

d) The CNS/COMM shall coordinate and advance its works to maximize efficiency and reduce costs:

- conduct work through emails
- conduct work through telephone and teleconference calls
- hold meetings when necessary

5. Membership

The CNS/COM Membership list is presented below. ICAO will act as technical adviser to the Committee.

CNS Committee Members

Rapporteur: Veronica Ramdath. Trinidad and Tobago
Member States: Antigua and Barbuda, Barbados, France, Trinidad and Tobago, United Kingdom, United States and ECCAA.

State	Member Name	E-mail Address	Tel / Mobile / Fax
Antigua and Barbuda	Lorraine Davis ATS Examining Officer Ministry of Civil Aviation	Sivad81@hotmail.com	Telephone: + 268 562 5232
Barbados	Suzanne Griffith Technical Officer – Training & Systems	suzanne.griffith@barbados.gov.bb	Telephone: + 1 246 428 6667
France	Jean-Jacques Deschamps Head of Technical Division French Civil Aviation Directorate Air Navigation Services Antilles-Guyana	jean-jacques.deschamps@aviation-civile.gouv.fr	Telephone: + 596 596 422507
Trinidad and Tobago	Veronica Ramdath Manager Communication Navigation Surveillance Trinidad and Tobago Civil Aviation Authority	vramdath@caa.gov.tt	Telephone: + 1 868 669 4706

State	Member Name	E-mail Address	Tel / Mobile / Fax
United Kingdom	James Prideaux Assistant Manager Caribbean	james.prideaux@caribairsafety.aero	Telephone: + 284 495 7143 Mobile: + 284 541 9413
United States	Dulce M. Rosés Program Manager, International Telecommunications CAR/SAM	Dulce.roses@faa.gov	T + 1 305 716-1830
ECCAA Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines)	Rudyard Ashe Manager, CNS Unit Eastern Caribbean Civil Aviation Authority	rashe@eccaa.aero	T + 1 268 462 0000

6. CNS/COMM Work Programme

6.1   The CNS/COMM work programme is presented as follows:

Task Number	Task Description	Priority[1]	Status
CNS/1	**General Matters**		
CNS/1/1	Review, identify, evaluate and recommend solutions with the necessary priority assignment on the deficiencies of the CNS systems.	A	Permanent
CNS1/2	Examine the CNS systems in the adjacent regions, with the aim of contributing to a coordinated and harmonious interconnection development.	B	Permanent
CNS/1/3	Suggest measures for the protection of the radio frequency spectrum management.	A	Permanent
CNS/2	**Communication**		
CNS/2/1	Continue the guidance and follow-up to the development of communication networks and develop regional guidelines for the inter-operability between the communication networks of the CAR and SAM Regions and neighbouring areas.	B	

---

[1] Priority:

A — High priority tasks, the work should be accelerated.

B — Medium priority tasks, the work should commence as soon as possible, but without affecting Priority **A** tasks.

C — Less priority tasks, the work should commence as time and resources allow, but without affecting Priority **A** and **B** tasks.

Task Number	Task Description	Priority[1]	Status
CNS/2	**Communication**		
CNS/2/2	Coordinate and implement the transition for inter network ATN service (AMHS).	A	
CNS/2/3	Continue the Air Traffic Services Inter-Facility Data Communication (AIDC) implementation plan; coordinate the implementation of the ground-ground applications such as AIDC.	B	
CNS/2/4	Promote the planning of AIDC implementation in the CAR States/Territories, update the status of their Flight Plan (FPL) System and the stop the use of converters.	B	
CNS/2/4	High Frequency (HF) – Monitor the performance of the HF service in the Oceanic portion of the Piarco FIR and implement improvements in conjunction with contracted service provider as required.	A	
CNS/2/5	Very High Frequency (VHF) – Monitor the performance of the VHF service and implement improvements as necessary.	A	
CNS/3	**Navigation**		
CNS/3/1	Study and analyse the regional Satellite-Based Augmentation System (SBAS)/ Ground-Based Augmentation System (GBAS) implementation alternatives, considering the evolution and augmentation of the Global Navigation Satellite System (GNSS).	C	
CNS/3/2	Provide assistance to States with the implementation of the deactivation of the Non-Directional (Radio) Beacon (NDB) stations.	B	
CNS/3/3	Review and update the NDB deactivation plan accordingly based on individual States' situations.	B	
CNS/3/4	Evaluate the required navigation infrastructure to satisfy Performance-Based Navigation (PBN) based in navigation requirements, identifying improvements and deficiencies.	B	
CNS/4	**Surveillance**		
CNS/4/1	Promote surveillance data sharing implementation in the Region.	A	
CNS/4/2	Evaluation of surveillance infrastructure to satisfy the PBN navigation requirements.	B	

Task Number	Task Description	Priority[1]	Status
CNS/4	**Surveillance**		
CNS/4/3	Promote the surveillance coverage in the continental airspace of the Piarco Flight Information Region (FIR) [Automatic Dependent Surveillance - Broadcast (ADS-B), Radar, Multilateration (MLAT)].	A	
CNS/4/4	In order to support and guide ADS-B implementation in the CAR Region and to achieve the regional milestone date of December 2018 for the implementation of ADS-B OUT, the Regional ADS-B CONOPS document initial version be adopted as a guide to planning and implementation of ADS-B service to the States/ANSPs in the region.	A	
CNS/4/5	In order to support and guide the ADS-B implementation in the CAR Region and to achieve the regional milestone date of December 2018 for the ADS-B OUT implementation, and that the *Technical Specification* document be adopted as a guide for the acquisition and implementation of the ADS-B service.	A	
CNS/4/6	Monitor and evaluate the progress and results of ADS-C/ CPDLC.	A	
CNS/4/7	Support the Controller-Pilot Data Link Communications (CPDLC) and Automatic Dependent Surveillance – Contract (ADS-C) implementation. The States involved in this implementation shall adopt as references the CPDLC implementation considerations, as well as a CPDLC/ADS-C implementation action plan respectively.	A	
CNS/5	**ATM Automation**		
CNS/5/1	Develop functional levels for the ATM automation implementation.	C	

ID	TASK NAME	DELIVERABLE	RESPONSIBLE	COMMENTS	STATUS	
				COMMUNICATION		
1	Improve HF/AMS coverage and mitigate deficiencies	Identify deficiencies and develop corresponding action plan.	Trinidad and Tobago	1. Evaluation of the existing HF AMS coverage in the E/CAR Sub-region in accordance with operational requirements and considering users' reports: for ex. LHD reports 2. Identification of any deficiency or improvement and involved parties. 3. Development of action plan to implement improvement/solution	In May 2011, Trinidad and Tobago formalized an agreement with ARINC for the provision of HF service in the Piarco Oceanic airspace. At the ANI/WG/2 meeting (1-4 June 2015) IATA informed there are no new reports on HF issues.	Completed
2	Improve VHF/AMS coverage and mitigate deficiencies	Identify deficiencies and develop corresponding action plan.	States/Territories coordinated by WG		**Trinidad and Tobago:** To mitigate against congestion on the existing ACC and Approach frequencies, Trinidad and Tobago implemented seven air/ground (VHF mobile) frequencies.	Completed
					Antigua: (TWR) 118.2, (APP) 119.1, 121.5 (EMG), (Ground) 121.9 There have been IATA reports on the TWR frequency regarding coverage on 118.2. An action plan to resolve deficiencies was forwarded with a target date to implement by Q1 2016.	Valid
					Barbados: new VHF equipment installed. Area covered. No IATA reports. Frequencies: (TWR) 118.7, 121.9, 121.5, (Ground) 121.8, (App) 129.35, 128.85, 120.7, 121.2, 121.5, (ATIS) 132.725	Completed

ID	TASK NAME	DELIVERABLE	RESPONSIBLE	COMMENTS	STATUS	
					Dominica: **Douglas Charles** TWR The high site was compromised resulting in its unavailability. The radios were reconfigured to operate from the TWR. New equipment was ordered for the high site. Restoration of the high site is expected to be completed by Q3 2016.	Valid
					Dominica: Canefield TWR 118.7, 121.9 and 121.5 –No issues	Completed
					San Juan: No VHF issues	Completed
					Saint Vincent and the Grenadines: No issues	Completed
					Grenada: (APP) 119.4-coverage issues in the North East. An action plan to resolve deficiencies was forwarded with a target date to implement by Q1 2016.	Valid
					Saint Lucia: (TWR) - radio stations reported to telecoms agency NTRC, interference from Martinique on 121.9. A new frequency was acquired with new equipment. Completion date by Q4 2015.	Valid
					Saint Lucia: (APP) 119.8 (the request to implement a discrete radio link was made to SLASPA regarding noise from cell sites and radio stations- (TWR) 118.3, (Ground) 121.6, (EMG) 121.5. Implementation to be completed by Q4 2015)	Valid
					Martinique: TWR- OK APP- OK	Completed
					Guadeloupe: APP OK TWR – OK	Completed

ID	TASK NAME	DELIVERABLE	RESPONSIBLE	COMMENTS	STATUS	
					Montserrat: Issue at high site - a radio link was lost between high site and airport, therefore, reduced coverage in the South. Restoration of high site completed. Coverage checks are underway. All work to be completed by Q4 2015.	Valid
					Saint Kitts: Coverage problem in the North with aircraft coming from Sint Maarten – radio link was replaced in June 2015	Completed
					Nevis: Equipment needs to be replaced/no longer supported by manufacturer. Contract to be awarded in August 2015. Implementation to be completed by Q2 2016.	Valid
3	All States with International Aerodromes to implement ATIS (automated ATIS)	ATIS Implementation plan	States/Territories coordinated by WG		**Trinidad and Tobago:** automated voice	Completed
					Antigua: automated voice	Completed
					Barbados: automated voice	Completed
					Dominica: No ATIS	Valid
					Grenada: No ATIS	Valid
					Guadeloupe: recorded by ATC. No plans to change this.	Completed
					Nevis: No ATIS	Valid
					Martinique: recorded by ATC. No plans to change this.	Completed
					Montserrat: No ATIS	Valid
					Saint Kitts: No ATIS	Valid
					Saint Lucia/George Charles and Hewanorra: Automated ATIS procured. Implementation to be completed by Q1 2016	Valid
					Saint Vincent and the Grenadines: Automated ATIS planned for Argyle	Valid
					San Juan: Automated voice	Completed

ID	TASK NAME	DELIVERABLE	RESPONSIBLE	COMMENTS	STATUS	
4	Implementation of AIDC as detailed in the plan approved by the ANI/WG (WP/08 - ANI/WG/2)	Technical recommendations for AIDC implementation over the AMHS	States/Territories coordinated by WG Trinidad and Tobago and the Piarco FIR, and Guadeloupe and Martinique, when both ATM systems are replaced in 2018.	For the development of this task, operational AIDC requirements need to be defined including the corresponding ATS units involved.	Telecommunication requirements will be reviewed based on PIARCO and FWI AIDC implementation.	Valid
				NAVIGATION		
5	Evaluation of required nav. infrastructure to satisfy PBN based nav. requirements, identifying improvements and deficiencies	Analysis of required navigation infrastructure for example: DME-DME coverage for selected ATS routes for RNAV 5.	States/Territories coordinated by WG	For the development of this task, operational PBN navigation specifications need to be defined.		Valid
6	Navaids Rationalization- maintaining certain NDB or VOR facilities used in relation to new satellite navigation	Review and update the deactivation plan accordingly, based on individual States' situations.				Valid
7	Provide assistance to States in the implementation of the deactivation of NDB stations.					Valid
				SURVEILLANCE		
8	Surveillance Data Sharing implementation	Agreements and implementation of Surveillance data sharing	Barbados, French WI, Trinidad and Tobago and Sint Maarten	The Radar Data Sharing Task Force shall provide their report on this subject.	Trinidad and Tobago is the host for the surveillance data sharing server and presently receives the radar system tracks from Martinique and Guadeloupe. The project encompasses receiving surveillance inputs and presenting the merged image to the E/CAR States via the E/CAR AFS Network.	Valid

ID	TASK NAME	DELIVERABLE	RESPONSIBLE	COMMENTS	STATUS	
9	Evaluation of surveillance infrastructure and performance to satisfy navigation requirements for PBN	Analysis of surveillance infrastructure	States/Territories coordinated by WG	For the development of this task, operational PBN specifications need to be defined. The ATM shall define these requirements and the priority of this implementation.		Valid
10	Implementation of 24 bits address registry	24 bits Aircraft Address registry	States/Territories coordinated by WG	The involved parties are expected to inform their progress in the development and implementation of their national registry of 24-bit aircraft addresses in accordance to Annex 10, Vol III Chap 9 and GREPECAS guidance (http://www.mexico.icao.int/CNS.html).	Trinidad and Tobago	Completed
					OECS	Completed
					Martinique and Guadeloupe	Completed
					Barbados – Completed	Valid
11	ADS-B and/or MLAT	Trials on ADS-B, MLAT and ADS-C	States/Territories coordinated by WG	E/CAR States shall inform their national plans for conducting trials on ADS-B, ADS-C, MLAT and the WG shall consolidate a plan for these trials to the benefit of its results.	**Barbados** A contract was awarded to Selex ES for five (5) MLAT sensors for the airport and seven (7) Wide Area Multilateration (WMLAT) sensors to improve the NW sector of Barbados Terminal Control Area (TMA). MLAT data may be eventually shared with the E/CAR surveillance data pool. The project has a target date of Q4 2015.	Valid
					ECCAA advised that they are conducting feasibility studies in the OECS States toward the implementation of MLAT.	Valid

ID	TASK NAME	DELIVERABLE	RESPONSIBLE	COMMENTS	STATUS	
					France MLAT Simulations carried out in Martinique and French Guiana led to the conclusion that MLAT was not an efficient solution to cover all the airspace for approach. ADS-B – French Guyana: 2 receivers for trials in 2015, 5 receivers for control in 2016/2017. FWI: 1 receiver in Martinique in 2016 for trials and work on CONOPS.	Valid
					Trinidad and Tobago ADS-B trials during specified periods in the Piarco terminal airspace (targets of opportunity).	Valid
12	ADS-C/ CPDLC evaluation and trial Plans	Plan on ADS-C and CPDLC	States/Territories coordinated by WG		**Trinidad and Tobago** Trials are underway for FANS1/A (ADS-C and CPDLC) services from ARINC.	Valid
					San Juan – ADS-B	Completed
13	ICAO Position for the International Telecommunication Union (ITU) World Radiocommunication Conference (WRC-2015)	Actions to support the ANI/WG/2/2 Conclusion	States/Territories coordinated by WG	ICAO Twelfth Air Navigation Conference Assembly Recommendation 1/12 (*Development of the aeronautical frequency spectrum resource*) and Assembly Resolution A38-6 (*Support of the ICAO policy on radio frequency spectrum matters*)	**France** is currently updating regulations on frequency protection in alignment with ITU regulations.	Valid
					Trinidad and Tobago: In close communication with Spectrum Agency (TATT) for representation of the ICAO Position.	Valid
					ECCAA ECCAA in communication with ECTEL, who communicates with NTRC regarding the ICAO position.	Valid
					Barbados In communication with the Barbados Telecoms Unit regarding the ICAO Position.	Valid

APPENDIX I
SAR COMMITTEE´S ACHIEVEMENTS

1.   SUMMARY OF SAR COMMITTEE'S WORK SINCE THE LAST E/CAR/CATG/1 MEETING.

1.1   There was dialogue held on the follow-up action related to the National and Regional Plans of the Eastern Caribbean States.

1.2   Discussions were held and States were asked to submit their SAR PoCs. The incumbent would be required to participate in the upcoming teleconferences, webinars and meetings in order to meet the SAR activities in the E/CAR area and have a keen understanding of the States SAR system.

1.3   Discussions were held to ensure that each State has identified a Military and Civilian/Aeronautical Representative on the SAR Committee and better collaboration between civil and military agencies.

1.4   The committee recognizes the need for greater emphasis on SAR by States, inclusion of heads of civil aviation organizations and at the respective government level.

1.5   A high level meeting for E/CAR States including adjacent airspaces is suggested for 2016.

1.6   There is a need for the ICAO NACC Regional Office to engage E/CAR States Administrations to actively work and participate in the SAR service.

1.7   The SAR Committee has agreed to continue working on producing and signing agreements with neighbouring States and Territories. Assistance can be sought from the following States: Trinidad and Tobago, France and United States.

1.8   States/Territories with the SAR Committee have been engaged in the following activities:

- St Lucia has signed a LOA with France

- Trinidad and Tobago has signed an agreement with Netherlands, France and is finalising one to be signed with Portugal.

- Trinidad and Tobago has completed a draft Search and Rescue Operators Training programme. This would be used to certify Aeronautical Search and Rescue Operators to function within the ARCC Piarco to provide a 24/7 service.

2.   SUGGESTED ACTIONS

2.1   Based on the teleconferences and the information exchanged between the Rescue Coordination Centre (RCC), Rescue Sub-centre (RSC) and other SAR related parties, (E/CAR/CATG/2-WP/13, Decision E/CAR/CATG 1/19 - *SAR Action Plan*, Conclusion E/CAR/CATG 1/20 - *Exchange of Information for SAR Implementation*)**,** E/CAR States to:

✓ Submit their action plan (activities, dates, responsible, deliverables) by 30 September 2015

✓ States/Territories to provide feedback regarding level of maturity in accordance to the respective national SAR plan, which is to be harmonized with the regional SAR plan by end of September 2015.

✓ attend teleconferences as a cost effective mean to do the committee's work.

✓ attend the ICAO SAR meetings as a mean of education and training to develop their SAR systems.

✓ encourage their Military stakeholders, responsible for SAR, to also attend the ICAO SAR Meetings.

✓ submit Points of Contacts for their State Civil and military areas by the end of September 2015.

✓ start identifying the relevant personnel to be trained as SAR Operators in their respective countries to be submitted by August 2015.

✓ advise willingness and their State's commitment to attend a high level SAR meeting to be possibly hosted by Trinidad and Tobago by the end of October 2015. Trinidad and Tobago is willing to host the meeting, based on States commitments to attend.

✓ present their improvements based on the analysis of SAR Capability of States and Territories by the end of September 2015.

✓ ICAO to facilitate, through coordination via teleconference, the exchange of expertise and experiences among the SAR Committee, E/CAR States, and other States with mature SAR structures to assist with SAR implementation in E/CAR States
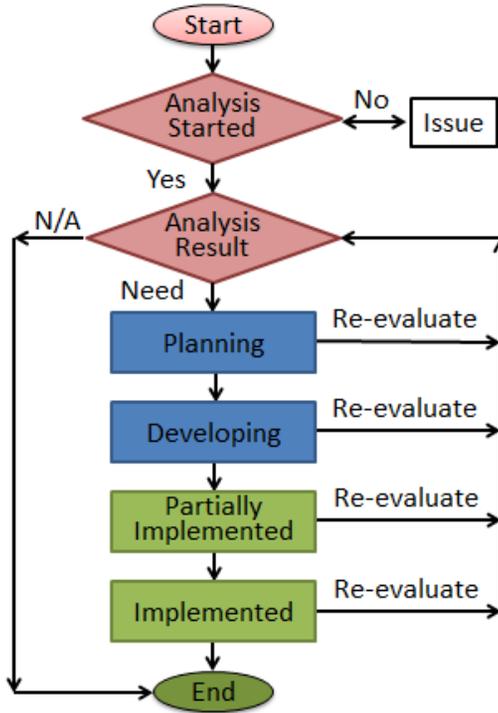
Selection criteria:

Safety assessments need to be conducted to identify airports and FIRs where improvements are required for safety reasons. For example, where do runway incursions occur? Where do missed approaches occur? Where do separation losses occur?

Operational assessments need to be conducted to identify airports and FIRs where improvements are required for efficiency reasons. For example, where are there departure or arrival delays? Where are there flow restrictions?

Business case analyses need to be conducted to determine whether the identified improvements are feasible: are enough aircraft equipped, certified, approved, to participate in the new operation? Can the improvement be financed? Are the costs to implement justified/offset by the savings or safety improvements that are foreseen?

ICAO Guidance Documents often include material to assist States to assess whether a particular airspace or airport is suitable or should be considered for a specific implementation.

IATA and CANSO produce best practices guidance documents to assist ANSPs and operators to carry out operational benefits analyses.

ICAO provides implementation kits (iKits) at the following link:

http://www.icao.int/safety/Implementation/Pages/iKITs.aspx

CANSO and IATA have produced guidance and best practices on how to develop metrics and measure performance from implementations, in order to determine whether the intended improvements have been achieved.

Module Code	Module Title	Elements	Source	Metric	Target
B0-APTA	Optimization of Approach Procedures including vertical guidance	**1.** PBN Approach Procedures with vertical guidance (LPV, LNAV/VNAV minima, using SBAS and Baro VNAV)	Derived from 4.1.1	**a.** # out of # Table AOP I-1 airports which have assessed all runway ends for requirement **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-APTA 1.a.** 100% by Dec 31, 2015 **B0-APTA 1.b.** TBD **B0-APTA 1.c.** TBD
		2. PBN Approach Procedures without vertical guidance (LP, LNAV minima; using SBAS)	Derived from 4.1.1	**a.** # out of # Table AOP I-1 airports which have assessed all runway ends for requirement **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-APTA 2.a.** 100% by Dec 31, 2015
		3. GBAS Landing System (GLS) Approach procedures	Derived from 1.3.2	**a.** # out of # Table AOP I-1 airports that have assessed all runway ends for requirement **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-APTA 3.a.** 100% by Dec 31, 2015
The RPBANIP has: 1. APV with BARO VNAV, 2. APV with SBAS (WAAS), 3. APV with GBAS and 4. LNAV. This does not make sense, because LNAV refers to the approach limits possible, not an approach type. The types of PBN approaches are those with or without vertical guidance and another (less frequently implemented) type based on GBAS. We don't believe the stated targets are possible.					
B0-WAKE	Increased Runway Throughput through Optimized Wake Turbulence Separation	**1.** New PANS-ATM wake turbulence categories and separation minima	Defined: Element 1	**a.** publication of new minima	**B0-WAKE 1.a.** Applicable by Nov 2017?
		2. Dependent diagonal paired approach procedures for parallel runways with centrelines spaced less than 760 meters (2,500 feet) apart	Derived from Element 2	**a.** # out of # of Table AOP I-1 airports with such parallel runways that have been assessed for requirement **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-WAKE 2.a.** 100% by Dec 31, 2016
		3. Wake independent departure and arrival procedures for parallel runways with centrelines spaced less than 760 meters (2,500 feet) apart	Derived from Element 3)	**a.** # out of # of Table AOP I-1 airports with such parallel runways that have been assessed for requirement **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-WAKE 3.a.** 100% by Dec 31, 2016
		4. Wake turbulence mitigation for departures procedures for parallel runways with centrelines spaced less than 760 meters (2,500 feet) apart	Derived from Element 3	**a.** # out of # of Table AOP I-1 airports with such parallel runways that have been assessed for requirement **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-WAKE 4.a.** 100% by Dec 31, 2016
		5. 6 wake turbulence categories and separation minima	Identified by the United States	**a.** # of # selected airports at which this has been implemented	**B0-WAKE 5.a.** 100% by Dec 31, 2015

Module Code	Module Title	Elements	Source	Metric	Target
B0-RSEQ	Improve Traffic flow through Runway Sequencing (AMAN/DMAN)	**1.** AMAN via controlled time of arrival to a reference fix	Derived from Element 1	**a.** # out of # Table AOP I-1 airports assessed for requirement **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-RSEQ 1.a.** All by 31 Dec, 2015 **B0-RSEQ 1.b.** All by 31 Dec, 2015 **B0-RSEQ 1.c.** 10% by 31 Dec, 2016
		2. AMAN via controlled time of arrival at the aerodrome	Derived from Element 1	**a.** # out of # Table AOP I-1 airports assessed for requirement **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-RSEQ 2.a.** 100% by 31 Dec, 2015 **B0-RSEQ 2.b.** All by 31 Dec, 2015 **B0-RSEQ 3.c.** 10% by 31 Dec, 2016
		3. Departure management	Defined: Element 2	**a.** # out of # Table AOP I-1 airports assessed for requirement **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-RSEQ 3.a.** 100% by 31 Dec, 2015 **B0-RSEQ 3.b.** All by 31 Dec, 2015 **B0-RSEQ 3.c.** 10% by 31 Dec, 2016
		4. Departure flow management	Derived from Element 2	**a.** # out of # Table AOP I-1 airports assessed for requirement **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-RSEQ 4.a.** 100% by 31 Dec, 2016 **B0-RSEQ 1.b.** All by 31 Dec, 2015 **B0-RSEQ 1.c.** 10% by 31 Dec, 2016
		5. Point merge	Defined: Element 3	**a.** # out of # Table AOP I-1 airports assessed for requirement **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-RSEQ 5.a.** 100% by 31 Dec, 2016

Module Code	Module Title	Elements	Source	Metric	Target
B1-RSEQ	Improved airport operations through departure, surface and arrival management	**1.** Surface movement optimization		**a.** # out of # Table AOP I-1 airports assessed for requirement **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B1-RSEQ 1.a.** 100% by Dec, 2015 **B1-RSEQ 1.b.** 100% by Dec, 2016 **B1-RSEQ 1.c.** 20% by Dec, 2016
B0-SURF	Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)	**1.** A-SMGCS with at least one cooperative surface surveillance system	Derived from Element 1	**a.** # out of # Table AOP I-1 airports assessed for requirement **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-SURF 1.a.** 100% by 31 Dec, 2016
		2. Including ADS-B APT as an element of A-SMGCS	Derived from Element 1	**a.** # out of # Table AOP I-1 airports assessed for requirement **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-SURF 2.a.** 100% by 31 Dec, 2016 **B0-SURF 2.b.** 100% by 31 Dec, 2017 **B0-SURF 2.c.** 30% by 30 June, 2018
		3. A-SMGCS alerting with flight identification information	Derived from Element 2	**a.** # out of # Table AOP I-1 airports assessed for requirement **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-SURF 3.a.** 100% by 31 Dec, 2016
		4. Airport vehicles equipped with transponders	Derived from 1.4.1	**a.** # out of # Table AOP I-1 airports assessed for requirement **b.** # out of # required airports where vehicle equipage planned **c.** # out of # required airports where vehicle equipage completed	**B0-SURF 2.a.** 100% by 31 Dec, 2015 **B0-SURF 2.b.** 100% by 31 Dec, 2017 **B0-SURF 2.c.** 20% by 30 June, 2018
B0-ACDM	Improved Airport Operations through Airport-CDM	**1.** Airport CDM procedures	Derived from 1.1.2	**a.** # out of # Table AOP I-1 airports assessed for requirement **b.** # out of # required airports where planning completed **c.** # out of # required airports where implementation completed	**B0-ACDM 1.a.** 100% by 31 Dec, 2016 **B0-ACDM 1.b.** 100% by 31 Dec, 2017 **B0-ACDM 1.c.** 60% by 31 Dec, 2018

Module Code	Module Title	Elements	Source	Metric	Target
		2. Airport CDM tools	Derived from 1.1.2	**a.** # out of # Table AOP I-1 airports assessed for requirement **b.** # out of # required airports where planning completed **c.** # out of # required airports where implementation completed	**B0-ACDM 2.a.** 100% by 31 Dec, 2016
		3. Collaborative departure queue management	Derived from 3.1 & 7.2.1	**a.** # out of # Table AOP I-1 airports assessed for requirement **b.** # out of # required airports where planning completed **c.** # out of # required airports where implementation completed	**B0-ACDM 3.a.** 100% by 31 Dec, 2016
B0-FICE	Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration	~~% of FIRs within which all applicable ACCs have implemented at least one interface to use AIDC / OLDI with neighbouring ACCs~~			
		1. AIDC to provide initial flight data to adjacent ATSUs	Derived from 1.1.4	**a.** # out of # FIRs within which all ACCs have assessed requirement with all adjacent ACCs **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-FICE 1.a.** 100% by 31 Dec, 2015 **B0-FICE 1.b.** 100% by 31 Dec, 2016 **B0-FICE 1.c.** 50% by Dec, 2016
		2. AIDC to update previously coordinated flight data	Derived from 1.1.5	**a.** # out of # FIRs within which all ACCs have assessed requirement with all adjacent ACCs **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-FICE 2.a.** All by 31 Dec, 2015 **B0-FICE 2.b.** 100% by 31 Dec, 2016 **B0-FICE 2.c.** 50% by Dec, 2016
		3. AIDC for control transfer	Derived from 1.1.5	**a.** # out of # FIRs within which all ACCs have assessed requirement with all adjacent ACCs **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-FICE 3.a.** 100% by 31 Dec, 2015
		4. AIDC to transfer CPDLC logon information to the Next Data Authority	Derived from 1.1.6	**a.** # out of # FIRs within which all ACCs have assessed requirement with all adjacent ACCs **b.** # out of # required implementations planned **c.** # out of # required implementations completed	**B0-FICE 4.a.** 100% by 31 Dec, 2015

Module Code	Module Title	Elements	Source	Metric	Target
B0-DATM	Service Improvement through Digital Aeronautical Information Management	~~- % of States having implemented an AIXM based AIS database~~ ~~- % of States having implemented QMS~~			
		1. Aeronautical Information Conceptual Model (AICM) Aeronautical Information Exchange Model (AIXM)	Derived from 1.1.1	**a.** # out of # States that have assessed requirement **b.** # out of # required States that have completed planning **c.** # out of # required States that have completed implementation	**B0-DATM 1.a.** 100% by 31 Dec, 2015 **B0-DATM 1.b.** ?% by 31 Dec, 2016 **B0-DATM 1.c.** 40% by 31 Dec, 2018
		2. eAIP	Derived from 3.1.3	**a.** # out of # States that have assessed requirement **b.** # out of # required States that have completed planning **c.** # out of # required States that have completed implementation	**B0-DATM 2.a.** 100% by 31 Dec, 2015 **B0-DATM 2.b.** 100% by 31 Dec, 2017 **B0-DATM 2.c.** 45% by 31 Dec, 2018
		3. Digital NOTAM	Derived from 7.1	**a.** # out of # States that have assessed requirement **b.** # out of # required States that have completed planning **c.** # out of # required States that have completed implementation	**B0-DATM 3.a.** 100% by 31 Dec, 2015 **B0-DATM 3.b.** 100% by 31 Dec, 2017 **B0-DATM 3.c.** 35% by 31 Dec, 2018
		4. eTOD	Identified by NACC	**a.** # out of # States that have assessed requirement **b.** # out of # required States that have completed planning **c.** # out of # required States that have completed implementation	**B0-DATM 4.a.** 100% by 31 Dec, 2015 **B0-DATM 4.b.** 100% by 31 Dec, 2017 **B0-DATM 4.c.** 10% by 31 Dec, 2018
		5. WGS-84	?????	**a.** # out of # States that have assessed requirement **b.** # out of # required States that have completed planning **c.** # out of # required States that have completed implementation	**B0-DATM 5.a.** 100% by 31 Dec, 2015

Module Code	Module Title	Elements	Source	Metric	Target
		6. QMS for AIM	Identified by NACC	**a.** # out of # States that have assessed requirement **b.** # out of # required States that have completed planning **c.** # out of # required States that have completed implementation	**B0-DATM 6.a.** 100% by 31 Dec, 2015 **B0-DATM 6.b.** 100% by 31 Dec, 2015 **B0-DATM 6.c.** 100% by 31 Dec, 2016
B0-AMET	Meteorological information supporting enhanced operational efficiency and safety	**1.** WAFS	Defined: Element 1	**a.** # out of # States that have completed planning **b.** # out of # States that have completed implementation	**B0-AMET 1.a.** 100% by 31 Dec, 2014 **B0-AMET 1.b.** 100% by 31 Dec, 2014

Module Code	Module Title	Elements	Source	Metric	Target
		2. IAVW	Defined: Element 2	**a.** # out of # States that have completed planning **b.** # out of # States that have completed implementation	**B0-AMET 2.a.** 100% by 31 Dec, 2014 **B0-AMET 2.b.** 70% by 31 Dec, 2014 **B0-AMET 2.b.** 100% by 31 Dec, 2015
		3. TCAC forecasts	Defined: Element 3	**a.** # out of # States that have completed planning **b.** # out of # States that have completed implementation	**B0-AMET 3.a.** 100% by 31 Dec, 2014 **B0-AMET 3.b.** 100% by 31 Dec, 2014
		4. Aerodrome warnings	Defined: Element 4	**a.** # out of # States that have completed planning **b.** # out of # States that have completed implementation	**B0-AMET 4.a.** 100% by 31 Dec, 2014 **B0-AMET 4.b.** 50% by 31 Dec, 2014 **B0-AMET 4.b.** 80% by 31 Dec, 2015

Module Code	Module Title	Elements	Source	Metric	Target
		5. Wind shear warnings and alerts	Defined: Element 5	**a.** # out of # States which have completed planning **b.** # out of # States that have completed implementation	**B0-AMET 5.a.** 100% by 31 Dec, 2015 **B0-AMET 5.b.** 20% by 31 Dec, 2015
		6. SIGMET	Derived from Element 6	**a.** # out of # States that have completed planning **b.** # out of # States that have completed implementation	**B0-AMET 6.a.** 100% by 31 Dec, 2014 **B0-AMET 6.b.** 90% by 31 Dec, 2014 **B0-AMET 6.b.** 100% by 31 Dec, 2015
		7. Other OPMET information (METAR, SPECI and/or TAF)	Derived from Element 6	**a.** # out of # States that have assessed requirement to provide other OPMET information **b.** # of # required implementations planned **c.** # of # required implementations completed	**B0-AMET 7.a.** 100% by 31 Dec, 2015
B0-FRTO	Improved Operations through Enhanced En-Route Trajectories	~~% of FIRs in which FUA is implemented~~			
		1. CDM incorporated into airspace planning	Derived from Element 1	**a.** # out of # States that have assessed requirement **b.** # out of # required States that have completed planning **c.** # out of # required States that have completed implementation	**B0-FRTO 1.a.** 100% by 31 Dec, 2016
		2. Flexible Use of Airspace (FUA)	Defined: Element 2	**a.** # out of # States that have assessed requirement **b.** # out of # required States that have completed planning **c.** # out of # required States that have completed implementation	**B0-FRTO 2.a.** 100% by 31 Dec, 2015 **B0-FRTO 2.b.** 100% by 31 Dec, 2015 **B0-FRTO 2.c.** 50% by 31 Dec, 2016
		3. Flexible route systems	Defined: Element 3	**a.** # out of # FIRs that have assessed requirement **b.** # out of # required States that have completed planning **c.** # out of # required States that have completed implementation	**B0-FRTO 3.a.** 100% by 31 Dec, 2016
		4. CPDLC used to request and receive re-route clearances	Derived from Element 3	**a.** # out of # FIRs that have assessed requirement **b.** # out of # required States that have completed planning **c.** # out of # required States that have completed implementation	**B0-FRTO 4.a.** 100% by 31 Dec, 2016
B0-NOPS	Improved Flow Performance through	~~% of FIRs within which all ACCs utilize ATFM systems~~			

Module Code	Module Title	Elements	Source	Metric	Target
		Planning based on a Network-Wide view			
		1. ATFM	Derived from 1.1.1	**a.** # out of # FIRs that have assessed requirement **b.** # out of # required FIRs that have completed planning **c.** # out of # required FIRs that have completed implementation	**B0-NOPS 1.a.** 100% by 31 Dec, 2015 **B0-NOPS 1.b.** 100% by 31 Dec, 2017 **B0-NOPS 1.c.** 100% by 31 Dec, 2018
B0-ASUR	Initial capability for ground surveillance	~~% of FIRs where ADS-B OUT and/or MLAT are implemented for the provision of surveillance services in identified areas.~~	~~1. Not to be considered for the first reporting cycles due to lack of maturity.~~		
		1. ADS-B	Defined: Element 1	**a.** # out of # Table AOP I-1 airports that have been assessed for requirement **b.** # out of # required implementations that have been planned **c.** # out of # required implementations that have been completed	**B0-ASUR 1.a.** 100% by 31 Dec, 2016 **B0-ASUR 1.b.** 100% by 31 Dec, 2017 **B0-ASUR 1.c.** 30% by 31 Dec, 2018
		2. Multilateration (MLAT)	Defined: Element 2	**a.** # out of # Table AOP I-1 airports that have been assessed for requirement **b.** # out of # required implementations that have been planned **c.** # out of # required implementations that have been completed	**B0-ASUR 2.a.** 100% by 31 Dec, 2016 **B0-ASUR 2.b.** 100% by 31 Dec, 2017 **B0-ASUR 2.c.** 80% by 30 June, 2018
B0-ASEP	Air Traffic Situational Awareness (ATSA)	~~% of States having implemented air traffic situational awareness~~	~~1. Not to be considered for the first reporting cycles due to lack of maturity.~~		
		1. ATSA-AIRB	Defined: Element 1	**a.** # out of # FIRs that have assessed requirement **b.** # out of # required States that have completed planning **c.** # out of # required States that have completed implementation	**B0-ASEP 1.a.** 100% by Dec, 2016
		2. ATSA-VSA	Defined: Element 2	**a.** # out of # FIRs that have assessed requirement **b.** # out of # required States that have completed planning **c.** # out of # required States that have completed implementation	**B0-ASEP 2.a.** 100% by Dec, 2016

Module Code	Module Title	Elements	Source	Metric	Target
B0-OPFL	Improved access to optimum flight levels through climb/descent procedures using ADS-B	~~% of FIRs having implemented in-trail procedures~~	1. ~~Not to be considered for the first reporting cycles due to lack of maturity.~~		
		1. ITP using ADS-B	Derived from 1.3.1	**a.** # of # FIRs that have assessed requirement **b.** # out of # required States that have completed planning **c.** # out of # required States that have completed implementation	**B0-OPFL 1.a.** 100% by Dec, 2016
B0-ACAS	ACAS Improvements	~~% of States requiring carriage of ACAS (with TCAS 7.1 evolution)~~			
		1. ACAS II (TCAS version 7.1)	Derived from 1.3.2	**a.** # of # States that have assessed requirement for aircraft to carry and operate ACAS II **b.** # out of # required States that have completed planning **c.** # out of # required States that require carriage and operation of ACAS II	**B0-ACAS 1.a.** 100% by 31 Dec, 2015 **B0-ACAS 1.b.** 50% by Dec 31, 2017 **B0-ACAS 1.c.** 10% by 31 Dec, 2018
		2. Auto Pilot/Flight Director (AP/FD) TCAS	Derived from 1.3.7 a	**a.** # of # States that have assessed requirement **b.** # out of # required States that have completed planning **c.** # out of # required States that have completed implementation	**B0-ACAS 2.a.** 100% by Dec 31, 2016
		3. TCAS Alert Prevention (TCAP)	Derived from 1.3.7 b	**a.** # of # States that have assessed requirement **b.** # out of # required States that have completed planning **c.** # out of # required States that have completed implementation	**B0-ACAS 3.a.** 100% by Dec 31, 2016
B0-SNET	Increased Effectiveness of Ground-Based Safety Nets	**1.** Short Term Conflict Alert (STCA)	Defined: Element 1	**a.** # of # States that have assessed requirement for all ACCs **b.** # out of # States that have completed planning for all required ACCs **c.** # out of # States that have completed implementation at all required ACCs	**B0-SNET 1.a.** 100% by 31 Dec, 2015 **B0-SNET 1.b.** 100% by 31 Dec, 2015 **B0-SNET 1.c.** 80% by 31 Dec, 2015

Module Code	Module Title	Elements	Source	Metric	Target
		2. Area Proximity Warning (APW)	Defined: Element 2	a. # of # States that have assessed requirement at all ACCs b. # out of # States that have completed planning for all required ACCs c. # out of # States that have completed implementation at all required ACCs	**B0-SNET 2.a.** 100% by 31 Dec, 2015 **B0-SNET 2.b.** 100% by 31 Dec, 2015 **B0-SNET 2.c.** 70% by 31 Dec, 2015
		3. Minimum Safe Altitude Warning (MSAW)	Defined: Element 3	a. # of # States that have assessed requirement at all ACCs b. # out of # States that have completed planning for all required ACCs c. # out of # States that have completed implementation at all required ACCs	**B0-SNET 3.a.** 100% by 31 Dec, 2015 **B0-SNET 3.b.** 100% by 31 Dec, 2015 **B0-SNET 3.c.** 70% by 31 Dec, 2015
		4. Medium Term Conflict Alert (MTCA)	Identified by NACC	a. # of # States that have assessed requirement at all ACCs b. # out of # States that have completed planning for all required ACCs c. # out of # States that have completed implementation at all required ACCs	**B0-SNET 4.a.** 100% by 31 Dec, 2015 **B0-SNET 4.b.** 100% by 31 Dec, 2015 **B0-SNET 4.c.** 80% by 31 Dec, 2016
B0-CDO	Improved Flexibility and Efficiency in Descent Profiles (CDO)	1. Procedure changes to facilitate CDO	Derived from Element 1	a. # out of # FIRs that have been assessed for requirement b. # out of # required FIRs that have planned implementation c. # out of # required FIRs that have completed implementation	**B0-CDO 1.a.** 100% by 31 Dec, 2015 **B0-CDO 1.b.** 100% by 31 Dec, 2015 **B0-CDO 1.c.** 50% by 31 Dec, 2016
		2. Route changes to facilitate CDO	Derived from Element 1	a. # out of # FIRs that have been assessed for requirement b. # out of # required FIRs that have planned implementation c. # out of # required FIRs that have completed implementation	**B0-CDO 2.a.** 100% by 31 Dec, 2015

Module Code	Module Title	Elements	Source	Metric	Target
		3. PBN STARs	Derived from Element 2	**a.** # out of # Table AOP I-1 airports that have been assessed for requirement **b.** # out of # required procedures that have been planned **c.** # out of # required procedures that have been completed	**B0-CDO 3.a.** 100% by 31 Dec, 2015 **B0-CDO 3.b.** 100% by 31 Dec, 2015 **B0-CDO 3.c.** 80% by 31 Dec, 2016
B0-TBO	Improved Safety and Efficiency through the initial application of Data Link En-Route	**1.** ADS-C over oceanic and remote areas	Defined: Element 1	**a.** # out of # FIRs that have been assessed for requirement **b.** # out of # required FIRs that have planned implementation **c.** # out of # required FIRs that have completed implementation	**B0-TBO 1.a.** 100% by 31 Dec, 2015 **B0-TBO 1.b.** 100% by 31 Dec, 2015 **B0-TBO 1.c.** 80% by 31 Dec, 2016
		2. Continental CPDLC	Defined: Element 2	**a.** # out of # FIRs that have been assessed for requirement **b.** # out of # required FIRs that have planned implementation **c.** # out of # required FIRs that have completed implementation	**B0-TBO 2.a.** 100% by 31 Dec, 2015 **B0-TBO 2.b.** 100% by 31 Dec, 2015 **B0-TBO 2.c.** 80% by 30 June, 2018
B0-CCO	Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCO)	**1.** Procedure changes to facilitate CCO	Derived from Element 1	**a.** # out of # FIRs that have been assessed for requirement **b.** # out of # required FIRs that have planned implementation **c.** # out of # required FIRs that have completed implementation	**B0-CCO 1.a.** 100% by 31 Dec, 2015 **B0-CCO 1.b.** 80% by 31 Dec, 2015 **B0-CCO 1.c.** 60% by 31 Dec, 2016
		2. Route changes to facilitate CCO	Derived from Element 1	**a.** # out of # FIRs that have been assessed for requirement **b.** # out of # required FIRs that have planned implementation **c.** # out of # required FIRs that have completed implementation	**B0-CCO 2.a.** 100% by 31 Dec, 2015

Module Code	Module Title	Elements	Source	Metric	Target
		3. PBN SIDs	Derived from Element 2	**a.** # out of # Table AOP I-1 airports that have been assessed for requirement **b.** # out of # required procedures that have been planned **c.** # out of # required procedures that have been completed	**B0-CCO 3.a.** 100% by 31 Dec, 2015 **B0-CCO 3.b.** 80% by 31 Dec, 2015 **B0-CCO 3.c.** 60% by 31 Dec, 2016

Regional Operational Priorities

		Visual Aids for Navigation		**B0-75/SURF: RPBANIP**	70% of selected aerodromes complying with visual aid requirements as per Annex 14 by December 2015 States/Airport operators
		Aerodrome Bird/Wildlife Organization and Control Programme		**B0-75/SURF: RPBANIP**	70% of selected airports with an aerodrome bird/wildlife organization and control programme by December 2018 Airport operators
		Aerodrome Certification		**B0-ACDM: RPBANIP**	48% of international aerodromes to be certified in the CAR Region by December 2016– State CAA
		Heliport Operations		**B0-ACDM: RPBANIP**	30% of selected Heliports with operational approval by Dec. 2018 – State CAA

		MEVA III IP Network Implementation		**Supports B0-FICE implementation: RPBANIP**	100% implementation of MEVA III IP Network by MEVA Member States by August 2015
		AMHS Implementation		**Supports B0-FICE implementation: RPBANIP**	4 States with Air Traffic Services Message Handling Services (AMHS) interconnected with other AMHS by December 2014
		ATN Router Structure Implementation		**Supports B0-FICE implementation: RPBANIP**	70% of ATN router structure implemented by June 2016
		PBN Planning		**B0-FRTO: RPBANIP**	100% of States to have completed a PBN plan by Dec. 2018

ASBU IMPLEMENTATION STATUS CHECK LIST

Block 0 Modules	Elements	Not Started	Need Analysis			Implementation Status (if Needed)			
			In process	Need	N/A	Plan-ning	Develop-ing	Partially Imple-mented	Imple-mented
ACDM	1. Airport CDM procedures								
	2. Airport CDM tools								
	3. Collaborative departure queue management								
APTA	1. PBN Approach Procedures with vertical guidance (LPV, LNAV/VNAV minima, using SBAS and Baro VNAV)								
	2. PBN Approach Procedures without vertical guidance (LP, LNAV minima; using SBAS)								
	3. GBAS Landing System (GLS) Approach procedures								
RSEQ	1. AMAN via controlled time of arrival to a reference fix								
	2. AMAN via controlled time of arrival at the aerodrome								
	3. Departure management								
	4. Departure flow management								
	5. Point merge								
SURF	1. A-SMGCS with at least one cooperative surface surveillance system								
	2. Including ADS-B APT as an element of A-SMGCS								
	3. A-SMGCS alerting with flight identification information								
	4. Airport vehicles equipped with transponders								
WAKE	1. New PANS-ATM wake turbulence categories and separation minima								
	2. Dependent diagonal paired approach procedures for parallel runways with centrelines spaced less than 760 meters (2,500 feet) apart								
	3. Wake independent departure and arrival procedures for parallel runways with centrelines spaced less than 760 meters (2,500 feet) apart								
	4. Wake turbulence mitigation for departures procedures for parallel runways with centrelines spaced less than 760 meters (2,500 feet) apart								
	5. State-defined additional wake turbulence categories and separation minima (6-category wake vortex separation)								
AMET	1. WAFS								
	2. IAVW								
	3. TCAC forecasts								
	4. Aerodrome warnings								
	5. Wind sheer warnings and alerts								
	6. SIGMET								
	7. Other OPMET) information (METAR, SPECI and/or TAF)								
DATM	1. Aeronautical Information Conceptual Model (AICM) Aeronautical Information Exchange Model (AIXM)								

	2: eAIP								
	3: Digital NOTAM								
	4: eTOD								
	5: WGS-84								
	6: QMS for AIM								
FICE	1. AIDC to provide initial flight data to adjacent ATSUs								
	2. AIDC to update previously coordinated flight data								
	3. AIDC for control transfer								
	4. AIDC to transfer CPDLC logon information to the Next Data Authority								
ACAS	1. ACAS II (TCAS version 7.1)								
	2. Auto Pilot/Flight Director (AP.FD) TCAS								
	3. TCAS Alert Prevention (TCAP)								
ASEP	1. ATSA-AIRB								
	2. ATSA-VSA								
ASUR	1. ADS-B								
	2. Multilateration (MLAT)								
FRTO	1: CDM incorporated into airspace planning								
	2: Flexible Use of Airspace (FUA)								
	3. Flexible route system								
	4: CPDLC used to request and receive re-route clearances								
NOPS	1. ATFM								
OPFL	1. ITP using ADS-B								
SNET	1. Short Term Conflict Alert implementation (STCA)								
	2. Area Proximity Warning (APW)/								
	3. Minimum Safe Altitude Warning (MSAW)								
	4. Medium Term Conflict Alert (MTCA)								
CCO	1. Procedure changes to facilitate CDO								
	2. Route changes to facilitate CDO								
	3. PBN SIDs								
CDO	1. Procedure changes to facilitate CDO								
	2. Route changes to facilitate CDO								
	3. PBN STARs								
TBO	1. ADS-C over oceanic and remote areas								
	2. Continental CPDLC								
Summary Counts		0	0	0	0	0	0	0	0

APPENDIX J
NAM/CAR RPBANIP AIR NAVIGATION TARGETS
BASED ON RPBANIP VER 3.1

Red text: POS Declaration Targets   **Updated: 10 Apr 2015**

Element	Targets	RO	Source of data to measure it/ supporting body	Action needed/ Concern
1. Airspace Planning	100% of States to have completed a PBN plan by Dec. 2018	ATM/ VH	List of National PBN plans	
2. Flexible Use Airspace	50% of selected segregated airspaces available for civil operations by Dec. 2016	ATM/ VH		• Define criteria for selecting the segregated airspace • Define selection
3. AMAN And Time-Based Metering	10% of selected aerodromes with AMAN and time based metering by Dec. 2016	ATM/ VH		• Define AMAN application w/ time based metering • Define criteria for selecting the aerodrome for AMAN • Define selection
4. Departure Management (DMAN)	10% of selected aerodromes with DMAN by Dec. 2016	ATM/ VH		• Define DMAN application • Define criteria for selecting the aerodrome for DMAN • Define selection
5. Movement Area Capacity Optimization	20% of selected aerodromes with Airport-capacity calculated by Dec. 2016	AGA/JC		• Define criteria for selecting the aerodrome for airport capacity • Define selection
6. ADS-C Over Oceanic and Remote Areas	80% of selected FIRs with ADS-C implemented by December 2016	CNS/ JS	Regional NAM/CAR ADS-C/CPDLC Plan: GOLD TF	
7. CPDLC	80% of selected FIRs with CPDLC implemented by June 2018	CNS/ JS	Regional NAM/CAR ADS-C/CPDLC Plan: GOLD TF	

	Element	Targets	RO	Source of data to measure it/ supporting body	Action needed/ Concern
8.	APV with Baro VNAV	80% of instrument runways to have APV with Baro VNAV implemented by December 2016 – Service Providers and users	ATM/ VH	AIPs	Collect data to have a table for the metric
9.	APV with SBAS (WAAS)	20% of instrument runways to have APV with SBAS/WAAS implemented by December 2018– Service Providers and users	ATM/ VH	AIPs	Collect data to have a table for the metric
10.	APV with GBAS	20% of instrument runways to have APV with GBAS by December 2018 – Initial implementation at some States (services providers)	ATM/ VH	AIPs	Collect data to have a table for the metric
11.	LNAV	60% of instrument runways to have LNAV procedure implemented by December 2016 – Service Providers and users as per Assembly Resolution A37-11	ATM/ VH	AIPs	Collect data to have a table for the metric
12.	Surveillance System for Ground Surface Movement (PSR, SSR, ADS B or Multilateration)	30% of selected aerodromes with SMR/ SSR Mode S/ ADS-B/ Multilateration for ground surface movement by June 2018 States/airport operator	CNS/ JS	Regional ADS-B/MLAT Plan for selected aerodromes (TBD) / ADS-B TF	• Define criteria for selecting the aerodrome with SMR/ SSR Mode S/ ADS-B/ Multilateration (AGA) • Define selection
13.	On-board Surveillance Systems (transponder with ADS-B capacity)	20% of aircraft on the NAM/CAR State registries to have surveillance system on board (SSR transponder, ADS B capacity) by June 2018 Aircraft operators	CNS/JS	IATA and States (General aviation) / ADS-B TF	• Define total aircraft registry in NAM/CAR • Define procedure for data collection from States/IATA
14.	Vehicle Surveillance Systems	20% of vehicles at selected aerodromes with a cooperative transponder systems by June 2018 Vehicle operators	CNS/ JS	Regional ADS-B/MLAT Plan for selected aerodromes (TBD) / ADS-B TF	• Define of cooperative transponder system for vehicles • Define criteria for selecting the aerodrome where vehicles are to have collaborative transponders (AGA) • Define selection

Element	Targets	RO	Source of data to measure it/ supporting body	Action needed/ Concern
15. Visual Aids for Navigation	70% of selected aerodromes complying with visual aid requirements as per Annex 14 by December 2015 States/Airport operators	AGA/ JC	ICAO´s requirement per Annex 14, Vol I for all airports. Aerodromes certified shall comply with the requirement.	• Define criteria for selecting the aerodrome complying with visual aid requirements • Define selection
16. Aerodrome Bird/Wildlife Organization and Control Programme	70% of selected airports with an aerodrome bird/wildlife organization and control programme by December 2018 Airport operators	AGA/ JC	ICAO´s requirement per Annex 14, Vol I for all airports. Aerodromes certified shall comply with the requirement.	• Define criteria for selecting the aerodrome with an aerodrome bird/wildlife organization and control programme • Define selection
17. Airport – CDM	60% of selected aerodromes with Airport-CDM by Dec. 2018 – Airport Operator, Stakeholders	AGA/ JC	In consultation	• Define criteria for selecting the aerodrome with Airport-CDM • Define selection
18. Aerodrome Certification	48% of international aerodromes to be certified in the CAR Region by December 2016– State CAA	AGA/ JC	CAR Regional Aerodrome Certification Implementation Plan (CRACIP)	
19. Heliport Operations	30% of selected Heliports with operational approval by Dec. 2018 – State CAA	AGA/ JC	To request States for a list of heliports with operational approval	• Define criteria for selecting the Heliports with operational approval • Define selection
20. Implementation of ADS-B	30% of selected aerodromes with ADS-B implemented by Dec 2018	CNS/ JS	Regional ADS-B/MLAT Plan for selected aerodromes (TBD) / ADS-B TF	• Define criteria for selecting the aerodrome with ADS-B • Define selection
21. Implementation of Multilateration	80% of multilateration system implemented in selected aerodromes by June 2018	CNS/ JS	Regional ADS-B/MLAT Plan for selected aerodromes (TBD) / ADS-B TF	• Define criteria for selecting the aerodrome to have Multilateration System • Define selection
22. ACAS II (TCAS Version 7.1)	10% of aircraft on NAM/CAR State registries equipped with ACAS II (TCAS Version 7.1) by Dec 2018	CNS/ JS	States response	Enquiry to States

Element	Targets	RO	Source of data to measure it/ supporting body	Action needed/ Concern
23. Short-term Conflict Alert Implementation (STCA)	80% of selected ATS units with ground based safety nets (STCA) implemented by Dec 2015	ATM/ VH	Enquiry to States / GREPECAS C- Project	• Define criteria for selecting the ATS units with ground based safety nets (STCA) implemented • Define selection
24. Area Proximity Warning (APW)/ Minimum Safe Altitude Warning (MSAW)	70% of selected ATS units with ground based safety nets (APW) implemented / 70% of selected ATS units with ground based safety nets (MSAW) implemented by Dec 2015	ATM/ VH	Enquiry to States / GREPECAS C- Project	• Define criteria for selecting the ATS units with ground based safety nets (APW) / MSAW implemented • Define selection
25. Medium-term Conflict Alert (MTCA)	80% of selected ATS units with ground based safety nets (MTCA) implemented by Dec 2016	ATM/ VH	Enquiry to States / GREPECAS C- Project	• Define criteria for selecting the ATS units with ground based safety nets (MTCA) implemented • Define selection
26. WAFS	100% of States implementation of WAFS Internet File Service (WIFS) by December 2014	MET	Table listing the WIFS implementation	
27. IAVW	70% of MWOs with IAVW procedures implemented by December 2014. Volcanic Ash Advisory Centre, Washington USA and VAAC Montréal, Montréal, Canada	MET	Table of MWOs with IAVW procedures implemented	
28. Tropical Cyclone Watch	100% of MWOs with tropical cyclone watch procedures implemented by December 2014. Tropical Cyclone Advisory Centre, Miami, USA	MET	Table of MWOs with tropical cyclone watch procedures implemented	
29. Aerodrome Warnings	50% of selected aerodromes/AMOs with Aerodrome warnings implemented by December 2014	MET		• Define criteria for selecting the aerodromes/AMOs with Aerodrome warnings • Define selection

Element	Targets	RO	Source of data to measure it/ supporting body	Action needed/ Concern
30. Wind Shear Warnings and Alerts	20% of selected aerodromes/AMOs with wind shear warnings procedures implemented (MET provider services) by December 2015	MET		• Define criteria for selecting the aerodromes/AMOs with wind shear warnings procedures • Define selection
31. SIGMET	90% of selected aerodromes/MWOs with SIGMET procedures implemented (MET provider services) by Dec. 2014	MET	Table of MWOs with IAVW procedures implemented	• Define criteria for selecting the aerodromes/AMOs with SIGMET procedures • Define selection
32. MEVA III IP Network Implementation	100% implementation of MEVA III IP Network by MEVA Member States by August 2015	CNS/JS	MEVA III Implementation Plan / MEVA TMG	
33. AMHS Implementation	4 States with Air Traffic Services Message Handling Services (AMHS) interconnected with other AMHS by December 2014	CNS/JS	Regional AMHS Implementation Plan / AMHS TF	
34. AIDC Implementation	50% of FIRs within which all applicable ACCs have implemented at least one interface to use AIDC/OLDI with a neighbouring ACC by December 2016	CNS/JS	Regional AIDC Implementation Plan/ AIDC TF	
35. ATN Router Structure Implementation	70% of ATN router structure implemented by June 2016	CNS/JS	CAR/SAM CNS Table 1Ba/ Enquiry to States/ AMHS TF	Check ATN router criteria
36. QMS - AIM	100 % of States QMS Certified by Dec.2016	AIM/RM		
37. e.TOD Implementation	10 % of States e-TOD Implemented by Dec.2018	AIM/RM		
38. AIXM 5.1 Implementation	40 % of States with AIXM 5.1 implemented by Dec.2018	AIM/RM		
39. e-AIP Implementation	45 % of States with e-AIP implemented by Dec.2018	AIM/RM		
40. Digital NOTAM	35 % of States with Digital NOTAM implemented by Dec. 2018	AIM/ RM		
41. Air Traffic Flow Management	100% of FIRs within which all ACCs have ATFM measures available by Dec. 2018	ATM/ VH		
42. CDO implementation	50% of selected. Aerodromes with continuous descent operations (CDO) implemented by Dec.2016	ATM/ VH		
43. PBN STARs	80% of selected. Aerodromes with PBN STARs implemented by Dec.2016	ATM/ VH		

Element	Targets	RO	Source of data to measure it/ supporting body	Action needed/ Concern
44. CCO Implementation	60 % of selected aerodromes with continuous climb operations (CCO) implemented by Dec.2016	ATM/ VH		
45. PBN SIDs Implementation	60% of selected aerodromes with PBN SIDs implemented by Dec.2016	ATM/ VH		
Results from 36-40	100% of Aeronautical Information Services (AIS) to implement AIM Roadmap – Phase I required elements by December 2016	AIM/ RM		Need to define elements to measure from individual elements
Result form PBN-IFSET	Reduce Regional CO2 emissions by 40,000 tons per year through PBN implementation by December 2016	ATM/ VH	IATA	

APPENDIX K
ANRFs SAMPLE FORMS

Sample 1 Proposed ANRF

AIR NAVIGATION REPORT FORM (ANRF)		
	Date Updated	December 2, 2015
Region (or State)	NAM	
Regional (or National) Performance Objective *Provide a description for a planned performance improvement which is not included in an ASBU Module. (For example: Improved interoperability through the sharing of surveillance data)*		

Elements		Date	Status
1.	CDO implementation	Dec 2014	Implemented
2.	PBN STARs	Spring 2014	Implemented
3.	*If applicable, list ASBU Module element(s) the State does not plan to implement*		
4.	*Add Regional/State specific elements if any* (for example enroute PBN feeding into the PBN STARs); list elements associated with a Regional (or National) Performance Objective		
Implementation Challenges *Enter description – Classify by whether the challenges are in the area of Ground System Implementation, Avionics Implementation, Procedures Availability or Operational Approvals Availability.*			

Element Implementation Status Description		
1	CDO implementation	**International aerodromes with CDO implemented** CDO/OPD is implemented at approximately 98 airports (as of October 2013). The RNAV STARs designated as OPD were identified based on the below criteria: ● The procedure has coded altitudes. ● ATC can use 'descend via' phraseology with it. ● An 'expect' altitude is okay with other coded altitudes. The 'expect' can be 'cleared' by ATC issuing a restriction for the WP. ● It should NOT have any 'jets cross at xxx, turboprops cross at xxx' notes on it.
2	PBN STARs	**International aerodromes/TMAs with PBN STARs implemented** PBN STARs are implemented at approximately 197 airports (as of October 2013). 253 RNAV STARs in the NAS with some of the procedures serving multiple airports (as of October 2013).

Quantitative and Qualitative Benefits from the Implementation	
Element 1. CDO implementation	
Access & Equity	Only at locations where PBN STARs can be published to deconflict traffic flows with additional/different routing options. For example, RNAV STARs with OPDs implemented at Dulles and Regan National airports are now laterally separated.

Capacity	N/A
Efficiency	Cost savings through reduced fuel burn due to improved vertical profiles. Reduction in the number of required radio transmissions, and therefore controller and pilot workloads; however, we do not have empirical data to evaluate this particular benefit. Operational benefits: — Arrivals exhibited more efficient vertical profiles — Average time and distance within 250 nm of the airport did not change *(table below)*

		Vertical Profile Performance Outcomes					Additional Efficiency Performance Outcomes	
Weather	Proportion of Flights (%)	Number of Level Segments	Time in Level Flight (min)	Distance in Level Flight (nm)	Time-Weighted Altitude (feet)	Flights Without Level Segments (%)	Time (min)	Distance (nm)
VMC	86	2.0 (-16%)	5.4 (-13%)	31.2 (-12%)	17,300 (6%)	17 (72%)	43.4 (0%)	269.7 (0%)
Non-VMC	14	2.6 (-9%)	8.0 (-6%)	41.6 (-6%)	14,500 (6%)	9 (37%)	47.0 (0%)	280.7 (0%)
All	100	2.1 (-15%)	5.7 (-12%)	32.7 (-11%)	16,800 (6%)	16 (70%)	43.9 (0%)	271.2 (0%)

Environment	Reduced emissions as a result of reduced fuel burn – if there is a quantitative value, show the value.
Safety	RNAV STARs facilitate executing stabilized approaches. Example of a quantitative benefit: In 10 years prior to implementation, there were x CFIT occurrences that were attributed to non-stabilized descent. In the 3 years since the implementation, there have been 0 CFIT occurrences where non-stabilized descent was suspected or attributed.
Element 2. PBN STARs	
Access & Equity	N/A (from GANP)
Capacity	N/A (from GANP)
Efficiency	Cost savings and environmental benefits through reduced fuel burn. Authorization of operations where noise limitations would otherwise result in operations being curtailed or restricted. Reduction in the number of required radio transmissions. Optimal management of the top-of-descent in the en-route airspace. (from GANP)
Environment	N/A (from GANP)
Safety	More consistent flight paths and stabilized approach paths. Reduction in the incidence of controlled flight into terrain (CFIT). Separation with the surrounding traffic (especially free-routing). Reduction in the number of conflicts. (from GANP)

Notes
Enter notes/comments, etc. if any.

Sample 2 Proposed ANRF

AIR NAVIGATION REPORT FORM (ANRF)			

		Date Updated	
Region (or State)	NAM/CAR		

Regional (or National) Performance Objective
Airport improvements

Elements		**Date**	**Status**
5.	Aerodrome certification		
6.	Heliport operational approval		
7.	Visual aids for navigation		
8.	Aerodrome Bird/Wildlife Organization and Control Programme		

Implementation Challenges
Enter description – Classify by whether the challenges are in the area of Ground System Implementation, Avionics Implementation, Procedures Availability or Operational Approvals Availability.

Element Implementation Status Description

1	Aerodrome certification	Target: 48% of CAR aerodromes in CAR ANP Table AOP I-1 certified by 31 December 2016
2	Heliport operational approval	Target: 30% of NAM/CAR heliports in CAR and NAM ANPs Table AOP I-1 certified by 31 December 2018
3	Visual aids for navigation	Target: 70% of NAM/CAR airports in CAR and NAM ANPs Table AOP I-1 compliant with Annex 14 requirements by 14 December 2015
4	Aerodrome Bird/Wildlife Organization and Control Programme	Target: 70% of NAM/CAR airports in CAR and NAM ANPs Table AOP I-1 with an aerodrome bird/wildlife organization and control programme by 31 December 2018

Quantitative and Qualitative Benefits from the Implementation

Element 1. Aerodrome certification

Access & Equity	International operators may not be permitted to operate to aerodromes that are not certified
Capacity	
Efficiency	
Environment	
Safety	Certification should be contingent upon the airport complying with applicable ICAO SARPs. Certification and the associated regulatory oversight should increase the effectiveness of SSP and SMS processes to identify and correct safety issues at certified aerodromes.

Element 2. Heliport operational approval

Access & Equity	International operators may not be permitted to operate to heliports that are not approved
Capacity	
Efficiency	
Environment	
Safety	Certification should be contingent upon the heliport complying with applicable ICAO SARPs. Approval and the associated regulatory oversight should increase the effectiveness of SSP and SMS processes to identify and correct safety issues at approved heliports.
Element 3. Visual aids for navigation	
Access & Equity	International operators may not be permitted to operate to aerodromes that are not compliant with Annex 14
Capacity	
Efficiency	Annex 14 compliant visual aids for navigation assist flights to more efficiently complete ground movements
Environment	
Safety	Annex 14 compliant visual aids for navigation reduce flight crew confusion and assist in avoiding runway incursions or other ground movement errors
Element 4. Aerodrome Bird/Wildlife Organization and Control Programme	
Access & Equity	
Capacity	
Efficiency	
Environment	
Safety	An effective organization and control programme reduces the potential for aircraft to strike wildlife or ingest wildlife into engines or propellers.

Notes
Enter notes/comments, etc. if any.

APPENDIX L
TERMS OF REFERENCE (ToRs) AND WORK PROGRAMME OF THE EASTERN CARIBBEAN CIVIL AVIATION TECHNICAL GROUP (E/CAR/CATG)

1   Background

The Eastern Caribbean Civil Aviation Technical Group was established in October of 2012 by the Directors of Civil Aviation of the Eastern Caribbean in their Twenty-fourth Meeting of Directors of Civil Aviation of the Eastern Caribbean (E/CAR/DCA/24) through their Conclusion 24/7 - *New NAM/CAR Air Navigation Implementation Working Group*, letter b). The E/CAR/CATG was formerly known as the Eastern Caribbean Working Group (E/CAR/WG), which was created from Agreement No. 2/1 of the Informal ATS CAR/SAM 1/75 Meeting held in Bridgetown, Barbados from 14 to 17 October 1975, for the purpose of examining problems affecting airspace organization and utilization in the Eastern Caribbean area for States/Territories in the PIARCO and San Juan FIRs. The ToRs were expanded at the E/CAR/WG/18 Meeting (Saint Lucia, 1994) to include the continuous examination of problems affecting all air navigation fields in the Eastern Caribbean area. The Terms of Reference were revised at the E/CAR/WG/31 Meeting (Antigua and Barbuda, 2009) with a performance based approach for the implementation and improvement in all air navigation fields in the Eastern Caribbean area.

2.   Terms of Reference

a)   foster the implementation of the CAR/SAM Air Navigation Plan, the NAM/CAR Regional Performance-based Air Navigation Implementation Plan (RPBANIP) and other relevant regional documentation, in compliance with ICAO SARPs, as required;

b)   facilitate the development of emerging aviation initiatives focusing on continuous improvements on operational efficiency through the coordination of harmonised procedures and promote interoperability of networks and implementation of new technologies;

c)   develop operational improvement initiatives through action plans and implementation strategies and associated technologies to improve safety, increase operational and economic efficiency and/or capacity of regional Air Navigation Services;

d)   harmonise implementation of Regional Performance Objectives (RPOs) related to Block 0 selected modules of ASBU methodology, the *Global Air Navigation Plan* (ICAO Doc 9750); included in the NAM/CAR Regional Performance-based Air Navigation Implementation Plan (RPBANIP) for NAM/CAR Regions;

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

f) provide technical advice to the E/CAR Directors General of Civil Aviation, as required, in relation to the RPBANIP and any other necessary steps for implementation; and

g) promote development of operational initiatives to support the ICAO efforts to assist States in implementing the ICAO Standards and Recommended Practices (SARPs) in support of the "*No Country Left Behind*" (NCLB) campaign, and in order to ensure better harmonization of the *Port of Spain Declaration* targets implementation and resolution of Significant Safety Concerns related to Air Navigation matters.

3. Work Programme

The E/CAR/CATG Work Programme is based on the Regional Performance Objectives (RPO) activities/tasks contained in the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan, applicable to the E/CAR Region. To comply with this strategy, the E/CAR/CATG should:

a) consider the deadlines for implementation of facilities, services and procedures to improve air navigation services in the E/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 harmonization, taking into account the ATM Community expectations, performance metrics, environmental benefits and safety issues;

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

e) coordinate the implementation of initiatives with the seven components of Doc 9854, (AOM, DCB, AO, TS, CM, AUO, ATMSDM) as appropriate; and

f) quantify cost/benefit analysis in terms of performance indicators, deadlines, responsible body for implementation and results, as well as human factors performance and provide this information/results to the ICAO NACC Regional Office.

The E/CAR/CATG must report its work programme progress to the Directors of Civil Aviation of the Eastern Caribbean (E/CAR/DCA), to the NAM/CAR Air Navigation Implementation Working Group (ANI/WG) and the North American, Central American and Caribbean Working Group (NACC/WG).

4. Working Methods

a) the E/CAR/CATG Chairperson will be a representative from the E/CAR States/Territories designated by the Meeting for a three-session period. The duties of the Chairperson are the following:

- preside over the formal E/CAR/CATG Meetings
- coordinate the fulfilment of the tasks included in the action plan of the E/CAR/CATG
- maintain close coordination with the Secretariat for the development of the agenda of the meetings and other issues concerning the E/CAR/CATG
- coordinate with other implementation groups related to the E/CAR Air navigation implementation activities
- inform the Directors of Civil Aviation of the Eastern Caribbean meetings on the results of the E/CAR/CATG meetings

b)   the E/CAR/CATG will avoid duplication of work and maintain a close coordination among States/Territories/International Organization and users to optimise 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;

d)   the E/CAR/CATG may form Ad hoc Groups, Task Forces or Committees to work on specific topics and activities. Ad hoc Groups will be valid for the time of the meeting. Task forces and Committees will be valid until the completion of their assigned task or group of tasks. All tasks and activities should be clearly defined by time and deliverables. Nomination for the position of Rapporteur of Committees and/or Task Forces may be presented by any State or Territory which is a member of the E/CAR/CATG;

e)   the Committees and Task Forces should coordinate and progress their works between meetings as follows:

- conduct work via written correspondence, i.e. e-mail, fax, etc.; conduct work via phone and teleconference calls
- conduct work via a dedicated page on the ICAO NACC Regional Office Website
- hold meetings when necessary

f)   all Committee and Task Force Rapporteurs must present their report on the progress of assigned tasks to the E/CAR/CATG;

g)   the E/CAR/CATG will use the following classification/definitions to record recommendations in the meeting reports:

Decisions   Internal actions of the E/CAR/CATG
Draft Conclusions   Actions requiring communication to States and
                         Territories and/or endorsement by the E/CAR/DCAs.

     h)   the meetings will be usually convened every year, except in years when the NACC/WG meets, or whenever necessary. The ICAO NACC Regional Office will continue remote support of the E/CAR/CATG and in the event ICAO attendance at E/CAR/CATG meetings is requested, the E/CAR States will provide funding to accommodate travel expenses.

5. Membership

Antigua and Barbuda, Barbados, France, Grenada, Netherlands (Saba and Sint Eustatius), Sint Maarten, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago, United Kingdom, United States and ECCAA. Other international organization may be included as observers to the E/CAR/CATG.

6. E/CAR/WG Committees and Task Forces

AIS Committee	Rapporteur: Barbados – Shirley Ford
ATM Committee	Rapporteur: Trinidad and Tobago – Ian Gomez
SAR Committee	Rapporteur: Trinidad and Tobago – Rohan Garib
CNS Committee	Rapporteur: Trinidad and Tobago – Veronica Ramdath
AGA Committee	Rapporteur: Trinidad and Tobago – Kingsley Herreira

**STATE/TERRITORY POINTS-OF-CONTACT FOR E/CAR/CATG
FOLLOW-UP AND IMPLEMENTATION ACTIVITIES**

BARBADOS

Dianne Skeete, Chief Air Traffic Officer
E-mail: catcobgi@gmail.com

FRANCE

Olivier Jouans, Director Antilles Guyane ANSP
E-mail: Olivier.jouans@aviation-civile.gouv.fr

SINT MAARTEN

Raul Van Heyningen, Director of Air Traffic Services Division, PJIAE
E-mail: rvanheyningen@pjiae.com

TRINIDAD AND TOBAGO

Rohan Garib, (Ag.) Executive Manager Air Navigation Services
E-mail: rgarib@caa.gov.tt

UNITED KINGDOM

Maria P. Boyle, Chief Executive Officer, Caribbean Air Safety Support International Director of Civil Aviation for Anguilla, the British Virgin Islands and Montserrat E-mail: Maria.Boyle@airsafety.aero

UNITED STATES

Michael Polchert, Air Traffic Organization, Federal Aviation Administration
E-mail: michael.polchert@faa.gov

ECCAA

Donald McPhail, Director General (ag)
E-mail: contact@eccaa.aero

Anthony Meade, Director Air Navigation Services (ag)
E-mail: ameade@eccaa.aero

AGA Committee Membership Rapporteur: *Kingsley Herreira, Trinidad and Tobago*
Anguilla, Antigua and Barbuda, Barbados, Dominica, Montserrat, Netherlands, Sint Maarten, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago, United States, ECCAA and IFATCA.

STATE	MEMBER	E-MAIL ADDRESS	TEL / CELL / FAX
Anguilla	Lindon Hodges Deputy Airport Manager Anguilla Air and Seaports Authority	lindon.hodge@gov.ai hodgelindon@yahoo.com	T + 1 264-497-2384 C + 1 264-476-3121
Antigua and Barbuda	Edward Gilkes Director of Operations Antigua and Barbuda Airport Authority V.C. Bird International Airport	ee.gilkes@abairportauthority.com	T + 1 484 2310 C +1 720 9544
Barbados	Kellman Walcott ADRs/ATS Inspector Barbados Civil Aviation Department	Kelman.Walcott@barbados.gov.bb	T + 1 246-420-5472 PX: +1 246-428-0930 F: +1 246-428-2539 C: +1 253-0285
	Jason Inniss Operations Manager Grantley Adams International Airport Inc.	JInniss@gaiainc.bb	T: +1 246-418-4242 F: +1 246-418-0957 C:+1 246-243-1262
Dominica	Jean Williams Airport Manager, Dominica Air and Sea Ports Authority	melvillehallairportmanager.daspa@cwdom.dm daspa@cwdom.dm	T + 1 767-448-4009 T + 1 767-445-7101
Montserrat	Denzil Jones Aerodrome Manager	jonesd@gov.ms	T + 1 664-491-6218
	Joseph Irish SATCO	irishjl@gov.ms	T + 1 664-491-6218
Netherlands *(Saba and Sint Eustatius)*	Robin Valkenburcht	robin.valkenburcht@minvenw.nl	T + 31 70 456 7492
Sint Maarten	Raul Van Heyningen Director of Air Traffic Services Division, Princess Juliana International Airport	rvanheyningen@pjiae.com	T + 1 599 546 7536
	Mirto Breell Director Technical Division, Princess Juliana International Airport	mbreell@pjiae.com	T + 1 599 546 7540
Saint Lucia	Errol Cherubin Senior Air Traffic Controller, Saint Lucia Air and Seaports Authority	errol.cherubine@slaspa.com	T + 1 758 454 6355
	Michael Lee Manager Air Traffic Services, Saint Lucia Air and Sea Ports Authority	michael.lee@slaspa.com	T + 1 758 452 4418 T + 1 758 452 2893/4 F + 1 758 452 2062
Saint Vincent and the Grenadines	Corsel Robertson Director of Airports, Airports Department, Ministry of National Security Air and Sea Port Development	etjoshua@vincysurf.com	T + 1 784 458 4011 F + 1 784 458 4786
Trinidad and Tobago	Terence Wallen Licensing Inspector II, TTCAA, Golden Grove Road, Piarco, Republic of Trinidad and Tobago	twallen@caa.gov.tt	T/F + 1 868 669 4302 / 5397

STATE	MEMBER	E-MAIL ADDRESS	TEL / CELL / FAX
United States (Puerto Rico and the Virgin Islands)	Randy Moseng Airport Safety and Operations Specialist	randy.moseng@faa.gov	T +1 404 474 5114
ECCAA Grenada, Saint Kitts and Nevis	Charles Anthony Meade Acting Director, Air Navigation Services Eastern Caribbean Civil Aviation Authority	ameade@eccaa.aero contact@eccaa.aero	T + 1 268 462 0000
IFATCA	Alexis Brathwaite President and Chief Executive Officer International Federation of Air Traffic Controllers' Associations	pcx@ifatca.org brathwaite.alexis@gmail.com	T + 1 868 620 5969

AIM Committee Membership Rapporteur: Shirley Ford, Barbados

Antigua and Barbuda, Barbados, France, Grenada, Netherlands, Montserrat, Saint Lucia, Trinidad and Tobago, United States and ECCAA.

STATE	MEMBER	E-MAIL ADDRESS	TEL / CELL / FAX
Antigua and Barbuda	Eloise Denise Silston Quality Assurance Officer V.C. Bird International Airport	denisesilston@yahoo.com	T + 1 268 764-6694 /562 5231
Barbados	Shirley Ford Chief Aeronautical Information Service Officer Barbados Civil Aviation Department	aisbarbados@caribsurf.com	T + 1 246 428 0952
France	Catherine Arnaud SNA/AG Aeroport Martinique Aimé Césaire	Catherine.arnaud@aviation-civile.gouv.fr	T+1 596 42 2429
Grenada	Roselyn Charles Manager of Air Traffic Services	rcharles@mbia.grenada.com	T +1 473 444 4148 / 534 5219
Montserrat	Joseph Irish Senior Air Traffic Controller	irishjl@gov.ms	T +1 664 491 6218
Netherlands *(Saba and Sint Eustatius)*	Robin Valkenburcht	robin.valkenburcht@minvenw.nl	T + 31 70 456 7492
Saint Lucia	Errol Cherubin Senior Air Traffic Control Officer	cherubine@slaspa.com	T + 1 758 454 6355/ 1 758 454 5146
Trinidad and Tobago	Randy Gomez Chief Technical Officer, AIS Trinidad and Tobago Civil Aviation Authority	rgomez@caa.gov.tt	T + 1 868-669-4128 F + 1 868-669-1716
United States (Puerto Rico and the Virgin Islands)	George Sempeles	George P.Sempeles@faa.gov	T + 1 202 267-9290
ECCAA Dominica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines)	Charles Anthony Meade Acting Director, Air Navigation Services Eastern Caribbean Civil Aviation Authority	ameade@eccaa.aero contact@eccaa.aero	T + 1 268 462 0000

ATM Committee Membership Rapporteur: Ian Gomez, Trinidad and Tobago
Antigua and Barbuda, Barbados, France, Grenada, Netherlands, Trinidad and Tobago, United States, ECCAA and IFATCA.

STATE	MEMBER	E-MAIL ADDRESS	TEL / CELL / FAX
Antigua and Barbuda	Shenneth Phillipps ATS Operations Officer V.C. Bird Int'l Airport Antigua and Barbuda	catsvcbird@yahoo.com shennethp@yahoo.com	T + 1 268 562 0301
	Lorraine Davis	sivad81@hotmail.com	T + 1 268 562 0302
Barbados	Samuel Philgence Unit Chief - Air Traffic Services Barbados Civil Aviation Department	ucats@caribsurf.com Samuel.philgence@barbados.gov.bb	T + 1 246 418 4167
	Dianne H Skeete Chief Air Traffic Control Officer	catcobgi@gmail.com	T + 1 246 428 7377
France	Patrick Amouroux Head of Air Traffic Division French Civil Aviation Directorate Air Navigation Services Antilles-Guyana	patrick.amouroux@aviation-civile.gouv.fr	T + 596 596 422492
Grenada	Roselyn Charles Manager of Air Traffic Services	rcharles@mbia.grenada.com	T + 1 473 444 4148 /534 5219
	Willard De Allie	wdealie@mbiagrenada.com	T +1 473 534-5247
Netherlands *(Saba and Sint Eustatius)*	Robin Valkenburcht	robin.valkenburcht@minvenw.nl	T + 31 70 456 7492
Trinidad and Tobago	Dayanand Rajnath (Ag) Manager Air Traffic Services	drajnath@caa.gov.tt	T + 1 868 6694806 F + 1 868 669 0635
United States	Susan E. Horn Air Traffic Organization, En Route & Oceanic Safety & Operations Support	susan.e.horn@faa.gov	T + 1 202-385-8461
	Dan Eaves	dan.eaves@faa.gov	T +1 202 385 8492
ECCAA (Antigua and Barbuda, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines)	Charles Anthony Meade Acting Director, Air Navigation Services Eastern Caribbean Civil Aviation Authority	ameade@eccaa.aero contact@eccaa.aero	T + 1 268 462 0000
IFATCA	Alexis Brathwaite President and Chief Executive Officer International Federation of Air Traffic Controllers' Associations	pcx@ifatca.org brathwaite.alexis@gmail.com	T + 1 868 620 5969

SAR Committee Membership Rapporteur: Rohan Garib, Trinidad and Tobago

Antigua and Barbuda, Barbados, France, Netherlands, Trinidad and Tobago, United States, ECCAA and IFATCA

STATE	MEMBER	E-MAIL ADDRESS	TEL / CELL / FAX
Antigua and Barbuda	Shenneth Phillipps ATS Operations Officer V.C. Bird Int'l Airport Antigua and Barbuda	catsvcbird@yahoo.com shennethp@yahoo.com	T + 1 268 562 0301
Barbados	Dianne Skeete Chief Air Traffic Control Officer Barbados Civil Aviation Department	catcobgi@gmail.com	T + 1 246 428 7377
France	Jean Michel Pubellier	jean-michel.pubellier@aviation-civile.gouv.fr	T +
Netherlands *(Saba and Sint Eustatius)*	Robin Valkenburcht	robin.valkenburcht@minvenw.nl	T + 31 70 456 7492
Trinidad and Tobago	Rohan Garib, MSc. (UWI) Executive Manager Air navigation Services (Ag) Trinidad and Tobago Civil Aviation Authority	rgarib@caa.gov.tt	T + 1 868 669 4806
United States	Dave Edwards U.S. Coast Guard Search and Rescue ICAO IMO	David.L.Edwards@uscg.mil	T + 1 202 372 2087 F + 1 202 372 2912 C + 1 202 286 3155
ECCAA Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines)	Charles Anthony Meade Acting Director, Air Navigation Services Eastern Caribbean Civil Aviation Authority	ameade@eccaa.aero contact@eccaa.aero	T + 1 268 462 0000
IFATCA	Alexis Brathwaite President and Chief Executive Officer International Federation of Air Traffic Controllers' Associations	pcx@ifatca.org brathwaite.alexis@gmail.com	T + 1 868 620 5969