International Civil Aviation Organization
North American, Central American and Caribbean Office

WORKING PAPER

E/CAR/CATG/8 — WP/05
16/10/24

Eighth Eastern Caribbean Civil Aviation Technical Group (E/CAR/CATG/8) Meeting
Miami, United States, 22 to 24 October 2024

Agenda Item 3:   **Follow-up of the activities of the E/CAR/CATG**
                              3.5   Progress report of the CNS Committee

PROGRESS REPORT OF THE CNS COMMITTEE

(Presented by CNS Committee Rapporteur)

EXECUTIVE SUMMARY	
This paper presents an update on the activities carried out by the CNS Committee since the E/CAR/CATG/7 Meeting	
Action:	Suggested Actions are described in Section 3
Strategic Objectives:	• Safety • Air Navigation Capacity and Efficiency • Security & Facilitation • Economic Development of Air Transport • Environmental Protection
References:	• Thirteenth Eastern Caribbean Network Technical Group (E/CAR/NTG/13) and Eleventh Eastern Caribbean Radar Data Sharing Ad hoc Group (E/CAR/RD/11) Meetings, Miami, United States, 21 October 2024 • Seventh Eastern Caribbean Civil Aviation Technical Group Meeting (E/CAR/CATG/7), Miami, United States, 26 to 28 July 2023

1.   Introduction

1.1   The CNS Committee operates under the umbrella of the E/CAR/CATG and comprises of members from Anguilla, Antigua and Barbuda, Barbados, Dominica, France, Grenada, Montserrat, Saint Lucia, Saint Kitts, Saint Vincent, Trinidad and Tobago, United States and the Eastern Caribbean Civil Aviation Authority (ECCAA).

1.2   During the period since the last meeting of the CNS Committee, the work of the CNS Committee was limited due to the advancement of CNS project activities being undertaken by the Trinidad and Tobago Civil Aviation Authority (TTCAA) within the Piarco Flight Information Region (FIR).

2.   Discussion

2.1   Terms of Reference (ToR)

The Terms of Reference (ToR) was updated during the ECAR NTG 12 & ECAR RD 10 Meeting held in Miami on 24th – 25th July, 2023. The document is attached as **Appendix A.**

2.2   Technical and Operational Point of Contact Lists

2.2.1   During the ECAR NTG 13 & ECAR RD 11 Meeting, the Point of Contacts Information for ECAR States management support and the coordination of maintenance activities for the E/CAR AFS Network and the State/Territory Members of the E/CAR Network Technical Group (E/CAR/NTG) were updated so information about CNS activities, documents, meetings and work plans can be discriminated to participate in such activities/events.

2.2.2   An evaluation was done and it was found that there is a need to improve communication at all levels. The Point of Contacts lists are attached as **Appendix B** and **Appendix C.**

2.3   Work Programme

2.3.1   The work programme for the Eastern Caribbean Network Technical Group (E/CAR NTG) was reviewed and adjusted to incorporate ECAR States ATM system connections (AFTN), the current ADS-B/MLAT system installation, the AFS network upgrade, it's new technology and maintenance and monitoring of the new network using the IP solution.

2.4   ECAR Communication Network

2.4.1   The Telecommunication Services of Trinidad and Tobago (TSTT) is the service provider the E/CAR AFS MPLS Network. They manage the service capabilities and features, conduct the network performance analysis and upgrade and submit recommendations to ensure a reliable and robust network. The network is Internet Protocol (IP) circuits and was upgraded to accommodate the new technologies, due to evolving user requirements and security protocols offered by the manufacturer CISCO.

2.4.2   The installation of the new Aeronautical Fixed Services (AFS) Network commenced in May 2024. The installation of the first node was Tobago. It was successfully implemented and tested over a three (3) month period. The project implementation plan for the installation of the other nodes throughout the ECAR States were approved and submitted to the States during the first week of October. The original implementation plan was revised due to the delay of the IP circuits being installed by the telecommunications providers in Antigua and San Juan.

2.5   Automatic Dependent Surveillance – Broadcast (ADS-B) Multilateration (MLAT) in the
                 Piarco FIR

2.5.1   The installation of the Automatic Dependent Surveillance–Broadcast/Multilateration (ADSB/MLAT) System within the Piarco FIR has commenced. Its scheduled to be completed in two (2) phases. In first phase, the ADS-B/WAM System has been installed at two (2) of the six (6) sites in Trinidad, namely the Piarco Area Control Center (ACC) and the Piarco Tower. Currently, the installation of the equipment at Carlsen Field and Mt. Bleu is on-going. It is expected that the remaining sites of the first phase in Barbados, Trinidad and Tobago will be completed by December 2024.

2.5.2 The installation of the equipment for the second phase (Antigua and Barbuda and Lucia) is expected to be completed by the second quarter of 2025 with the final testing, validation, and integration of all the sites to provide the surveillance coverage over the continental airspace.

2.5.3 The Surveillance Concept for the Piarco FIR will include the provision of ADS-B services to augment the existing Secondary surveillance radar (SSR) source of surveillance. The Piarco ACC shall be a repository for all the ADS-B/WAM data processing, where the data will be integrated into the Piarco ATM System and the Multi Radar Tracker (MRT). Once approved, the combined data from all available surveillance sources will be available over the E/CAR AFS Network for distribution to the E/CAR States.

2.6 Very High Frequency/Aeronautical Mobile Services (VHF/AMS)

2.6.1 The upgrade of the VHF/AMS system has been scheduled to be completed in two (2) phases. Phase one (1) is the conversion of the communication link circuits from analog to Internet Protocol (IP) with Phase two (2) being the procurement of a new VHF system. Phase 1 was schedule to be completed in October 2024. However, during the installation of the analog to digital converters, the IP circuits were deemed to be unstable. Phase 2 of the project is being finalized for submission to the procurement department and final approval.

2.7 Regional AD-HOC Group Project

2.7.1 During the ECAR/NTG/12 and RD10 meeting, member states discussed the implementation the ADS-B requirement for Air Navigation Services in the region. As such, a regional AD-HOC Group project, within the ECAR NTG and RD group, will be created to assess the elements in the implementation plan of the ADS-B/CNS initiatives in Air Navigation in the ECAR Region.

2.7.2 This will help provide information on the current and future systems with technical and operational recommendations for states implementation and development with the DCAs in the region be made aware of the concept of regional projects for future implementation.

2.7.3 A regional ADS-B ad-hoc task force is being created to develop an ADS-B implementation projects team to provide information and to collaborate ADS-B information among all ECAR States. This ad-hoc group will comprise the members of states and organizations of ECAR and also be part of the ECAR NTG/RD meeting with one of the main objectives being safety. This is a priority for air navigation services since surveillance information support air control services and safety operations.

3. Suggested Action

3.1 The Meeting is invited to:

a) take note of the progress and status of the CNS Committee's activities;

b) to review and agree on the activities to be carried out; and

c) take any other action as deemed necessary.

— — — — — — — — — — —

APPENDIX A

EASTERN CARIBBEAN NETWORK TECHNICAL GROUP (E/CAR/NTG) TERMS OF REFERENCE

1.   Background

1.1   The Eastern Caribbean Network Technical Group (E/CAR/NTG) was established as a standing group in accordance with the Thirty-First Eastern Caribbean Working Group Meeting (E/CAR/WG/31), Conclusion 31/7 - Replacement of the E/CAR AFS Network, approved by the Twenty-Second Meeting of Directors of Civil Aviation of the Eastern Caribbean (E/CAR/DCA/22) Port-of-Spain, Trinidad and Tobago, 8 to 11 December 2009. The terms of reference of the E/CAR/NTG were approved by the E/CAR/DCA/22 Meeting, Decision 22/6 - E/CAR Network Technical Group (NTG) Terms of Reference and Fist Meeting. The following main objectives are assigned:

a)   analysis and monitoring of the status of the current E/CAR AFS Network;

b)   study, analyse and follow-up on the planning, documentation and implementation of the replacement of the existing E/CAR AFS Network;

c)   recommend measures to improve reliability of the E/CAR AFS Network for the immediate/near term.

1.2   By 2013, the E/CAR/NTG had fulfilled these objectives, with an efficient Internet Protocol (IP) Network and well established stable services; however, the continuous monitoring, analysis and follow-up to Network improvements and resolution of failures were considered necessary by the E/CAR AFS Network participants.

2.   Terms of Reference

2.1   For the activities related to the analysis and monitoring of the status of the current E/CAR AFS Network, the E/CAR/NTG is required to make recommendations on measures to improve the reliability of the E/CAR AFS Network for the immediate/ near term. These activities include:

a)   review the current status of the Network (maintenance and reporting procedures, technical personnel involved, spare parts, tools for monitoring the Network status, identify common network points of failure, etc.) and submit recommendations;

b)   ensure compliance of the Network services with ICAO SARPs, Regional Air Navigation Plans and user expectations (Aviation System Block Upgrades (ASBU) Block 0 Modules);

c)   assist Trinidad and Tobago and the E/CAR States with technical coordination and solutions of problems that occurred with the implementation and operation of the Aeronautical Fixed Service (AFS) including the E/CAR AFS Network, and to consider and make recommendations on measures to improve implementation and operation;

d)   study and propose to the E/CAR/DCA intra and inter-regional coordination for the E/CAR AFS Network connectivity with other regional and domestic digital communications networks of the CAR and SAM Regions.

e)   inform and advise the E/CAR AFS Network users, if a major failure or network concern that affects the entire network occurs or may occur or an event that does not allow achieving the Network Service level agreement, recommending solutions for its recovery and actions by the E/CAR AFS Network Service Provider.

3.   Work Programme

No.	Activities	Objectives	Responsible	Deliverables
1	To assist the E/CAR AFS Network Members in providing solutions to problems presented in the network operations and in the implementation of the related equipment and service.	Keep E/CAR AFS Network SLA levels	NTG	E/CAR AFS Network assistance
2	To study and implement Technical /operational measures that may be agreed to improve the operation and implementation of E/CAR AFS Network services, that do not impact in a significant cost, investments and objectives of the Network.	Satisfactory operation and service levels	NTG	Implementation of Network improvements
3	Keep E/CAR AFS Network Members aware of the status of the E/CAR AFS Network performance and conditions of operation.	E/CAR AFS Network awareness	NTG	Reliable E/CAR AFS Network website Network Performance revision
4	Maintain valid and up-to-date E/CAR AFS Network Contingency Procedures, taking into consideration the contingency plans of each E/CAR AFS Network Member and of the Service Provider and keeping aligned with the CAR Region General Contingency Plan.	Readiness for contingencies	NTG	E/CAR AFS NETWORK Contingency Procedures
5	To assist the E/CAR AFS Network Members in maintaining a valid data and voice circuits implementation, according to the requirements shown in the ANP CAR/SAM (ASBU BO modules and Regional/National Priorities).	Fulfil Air Navigation requirements	Task Forces-Ad hoc Groups	Data and voice circuit implementation
6	To study and propose solutions for AFS connectivity of the E/CAR AFS Network with other regional and CAR/SAM networks domestic	Fulfil Air Navigation requirements	Task Forces-Ad hoc Groups	Data and voice circuit implementation

No.	Activities	Objectives	Responsible	Deliverables
7	To review and propose amendments to the terms of the Services Agreement, based on the ICAO requirements for the transitioning towards the ATN for the E/CAR AFS Network.	Network improvements	Taskforces	Effective and efficient E/CAR AFS Network Transition Process
8	Keep and validate with the E/CAR AFS Network Service Provider a procedural handbook on management, operation and maintenance of the E/CAR AFS Network telecommunication circuits.	Ensure proper E/CAR AFS Network maintenance and operation	NTG	Maintenance Procedural Handbook/Manual

4.   Working Methods

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

   b)   E/CAR/NTG will avoid duplication of work within the E/CAR/CATG and maintain close coordination among the existing entities (like the NAM/CAR Air Navigation Implementation Group:ANI/WG) to optimize the use of available resources and experience;

   c)   E/CAR/NTG 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)   E/CAR/NTG should co-ordinate and progress its works as follows to maximize efficiency and reduce costs:
   •   conduct work via electronic written correspondence
   •   conduct work via phone and teleconference calls
   •   hold meetings when necessary

   e)   E/CAR/NTG meetings shall be conducted as possible, jointly with other E/CAR Meetings like the E/CAR/CATG meetings; and

   f)   E/CAR/NTG will report and coordinate the progress of assigned tasks to the E/CAR/CATG as well as to the E/CAR Directors.

5.   Membership

5.1   See attached Membership List. ICAO will act as technical adviser to the E/CAR/NTG.

6.   Rapporteur

6.1   Mr. Steve Saroop (Trinidad and Tobago)

— — — — — — — — — — —

APPENDIX B

EASTERN CARIBBEAN (ECAR) POINT OF CONTACTS (PoC)

State	Contact Person	Email Information	Contact Information
San Juan	Will Turner	will.ctr.Turner@faa.gov	1-404-434-8187
	Joseph Cruz	joseph.v.cruz@faa.gov	
	Luis Diaz	luiz.diaz@faa.gov	
	Miguel Zayas	miguel.zayas@faa.gov	
	Hector Ortiz-Diaz	hector.ortiz-diaz@faa.gov	
Anguilla	Trevor Davis	tdavis@eccaa.aero	1-268-723-2955
	Anthony Lawrence	answal@eccaa.aero	1-264-729-5552
	Roshima Roberts	roshima.roberts@aaspa.ai	
	Jabari Harrigan	jabari.harrigan@aaspa.ai	
	Keith Richardson	keith.richardson@aaspa.ai	
Martinique	Joel Catelo	joel.catelo@aviation-civile.gouv.fr	011 596 596 42 25 14
	Harry Asselin De Beauville	harry.asselin-de-beauville@aviation-civile.gouv.fr	
	Jean Marcel Monrose	jean-marcel.monrose@aviation-civile.gouv.fr	
Guadeloupe	Joel Kiavue	joel.kiavue@aviation-civile.gouv.fr	No info available as yet
	Julie Ibalot	Julie.ibalot@aviation-civile.gouv.fr	
St. Vincent	Stanton Gomes Deputy Director C.A	ddcasvg@gmail.com	
	Trevor Davis	tdavis@eccaa.aero	1-268-723-2955
	Andrea Best	dcasvg@gmail.com	
	David Burgin	dburgin.airports@gmail.com	

State	Contact Person	Email Information	Contact Information
Montserrat	Trevor Davis Joseph Irish Steve Ryan Zhuan Sweeny	tdavis@eccaa.aero irishjl@gov.ms ryans@gov.ms sweeneyz@gov.ms	1-268-723-2955
St. Kitts	Trevor Davis Joy Richardson Osbert Wilkinson	tdavis@eccaa.aero joy.richardson@scaspa.com osbert.wilkinson@scaspa.com	1-268-723-2955
Nevis	Trevor Davis Joy Richardson Osbert Wilkinson	tdavis@eccaa.aero joy.richardson@scaspa.com osbert.wilkinson@scaspa.com	1-268-723-2955
Antigua	Trevor Davis Romeo Simpsom D Gibbs	tdavis@eccaa.aero rsimpson@eccaa.aero dgibbs@eccaa.aero	1-268-723-2955
St. Lucia-Hewanorra	Trevor Davis Lynden Leonce	tdavis@eccaa.aero lynden.leonce@slaspa.com	1-268-723-2955 1-758-719-2250 1-758-728-4867
St. Lucia- George Charles	Trevor Davis Lynden Leonce Kendell Peter Andre Klein	tdavis@eccaa.aero lynden.leonce@slaspa.com Kendell.Peter@slaspa.com aklein@eccaa.aero	1-268-723-2955 1-758-719-2250 1-758-728-4867
Dominica-Douglas Charles	Trevor Davis Kershton Pascal	tdavis@eccaa.aero kpascal@daspa.dm	1-268-723-2955 1-767-225-9884
Dominica-Canefield	Trevor Davis Kershton Pascal	tdavis@eccaa.aero kpascal@daspa.dm	1-268-723-2955 1-767-225-9884

State	Contact Person	Email Information	Contact Information
Grenada	Trevor Davis	tdavis@eccaa.aero	1-268-723-2955
	Cristina Joseph	cjoseph@gaa.gd	
	Kurt Williams	kwilliams@gaa.gd	
	Glenn Forsyth	gforsyth@gaa.gd	
	Cuthbert Edwards	cedwards@gaa.gd	
Barbados	Mr. Odle	rodle@gaiainc.bb	1-246-832-5107
	Alvin Hall	ahall@gaiainc.bb	1-246-832-2973
	Glyne Blanchette	glyne.blanchette@barbados.gov.bb	1-246-536-3603
FAA	John Fullerton	john.w-ctr.fullerton@faa.gov	
	Al O'neil	al.oneil@faa.gov	
	Nigel Simmons	nigel.ctr.simmons@faa.gov	

— — — — — — — — — — —

APPENDIX C
Point of Contact Information for coordination of
maintenance activities for the E/CAR AFS Network

<u>Update: July 2023</u>

State/Airport	Contact Name	Telephone	Alternate Contact
Maurice Bishop Airport, Grenada	David Gibbs	Office: 473 444 4151 Mobile: 473 537 2046	Darryl Charles Office: 473 444 4151 Mobile: 473 422 4095
E.T. Joshua Airport, St. Vincent	David Boston	Office: 784 456 4950 Mobile: 784 430 2716	Anthony Benjamin Office: 784 456 4950 Mobile:784 528 4083
George Charles, St. Lucia	Alinton Alfred	Office: 758 452 2660 Mobile:758 518 3995	Jonathan Sandiford Office: 758 452 2660 Mobile: 758 715 6748
Hewanorra, St. Lucia	Andre Klien	Office: 758 454 6649 Mobile:758 721 5152	Alinton Alfred Office: 758 452 2660 Mobile:758 518 3995
Melville Hall and Canefield, Dominica	Joseph Morvan	Office: 767 449 1071 Mobile: 767 277 7909	Jean Williams, Airport Manager Tel: 1 767 445 7101 Melvillehallairportmanager.daspa@wdom.dm
John Osbourne, Montserrat	Steve Ryan	Tel Twr: 1 664 491 4229 Mobile: 1 664 496 4225 Email: ryans@gov.ms	Zhuan Sweeney, Senior ATC Tel: 1 664 491 6218 Email: sweeneyz@gov.ms
V C Bird Antigua	Romeo Simpson	Office: 268 462 3115 Mobile 268 722 4053	Mark Young Office: 268 462 3115 Mobile: 268 771 5005
R L Bradshaw, St. Kitts/ Nevis	Wycliffe Gumbs	Office: 869 465 4388 Mobile 869 663 6503	Jaylon Warner Office: 869 465 4388 Mobile: 869 763 4205
Clayton Lloyd, Anguilla	Anthony Lawrence	Office: None Mobile: 264 583 7134	Lindon Hodges, Deputy Airport Manager Tel: 1 264 497 2384 Mobile: 1 264 476 3121 Email: lindon.hodge@gov.ai

Barbados	Richard Odle	Email: ROdle@Gaiainc.bb Tel: 1 246 536 1332/3 Mobile: 1 246 832 5107 ATC: 1 246 536 827 1132	Alvin Hall (NAVAIDS & COMMS) Tel: 1 246 832 2973 Email: Ahall@gaianc.bb Jackie Crichlow (SURVEILLANCE & COMMS) Tel: 1 246 832 2974
United States	Mr. Al O'Neill International Telecommunications NAS Integration & Infrastructure Solutions AJM-3122 Email: al.o'neill@faa.gov	Tel: 1 404 474 5169 Mobile: 1 404 861 6503	Nigel CTR Simmons Senior Systems Engineer NAS Integration & Infrastructure Solutions AJW-3122 Tel: 1 301 760 7648 Mobile: 1 301 523 4840 Email: nigel.ctr.simmons@faa.gov
Martinique	Frederic Danloux DGAC / SNA-Antilles Guyane Deputy Head ANSP FWI Email: Frederic.danloux @aviation- civile.gouv.fr Frederic.danloux	Tel: + 596 596 42 25 07 Mobile: +596 696 96 11 07	Raphael Gamess DGAC / SNA-Antilles Guyane Quality Manager QMS Email: Raphael.gamess @aviation-civile.gouv.fr Tel: +596 596 42 25 13 Mobile: +596 696 73 61 89
Guadeloupe	Julie Ibalot Organisme de Contrôle Pointe- à- Pitre, SNA-AG Head of Guadeloupe ANS Email: Julie.ibalot@aviation- civile.gouv.fr	Tel: + 590 0590 48 20 02 Mobile: + 590 0690 69 21 04	
Trinidad and Tobago	Rupnarine Baboolal	Tel: 1 868 669 4806 Ext. 2568 Mobile: 1 868 774 4249 Email: rbaboolal@caa.gov.tt	CNS/ECAR Phone Office: 1 868 669 1859 Mobile: 1 868 724 6856

— END —