



ICAO

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

INFORMATION PAPER

E/CAR/NTG/13 & E/CAR/RD/11 — IP/02
21/10/24

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

Agenda Item 3: Operation and Performance of the E/CAR Aeronautical Fixed Services (AFS) Network
3.2 E/CAR Network Interconnections and Integration

PROGRESS ON CANSNET AND INTERCONNECTION TO THE E/CAR NETWORK

(Presented by United States)

EXECUTIVE SUMMARY

This paper provides information about the intended replacement network for MEVA III and requirements for interconnection to the E/CAR network.

Strategic Objectives:

- Safety
- Air Navigation Capacity and Efficiency
- Security & Facilitation
- Economic Development of Air Transport
- Environmental Protection

1. Introduction

1.1 The *Mejoras al Enlace de Voz del ATS III* (MEVA III) satellite network interconnects thirteen countries in the Caribbean covering an area bounded to the north by the United States, to the South by Curacao, to the west by Mexico and Central America, and goes as far East as Sint Maarten. Now in its third generation, MEVA has formed a vital link for voice and data traffic between the member countries.

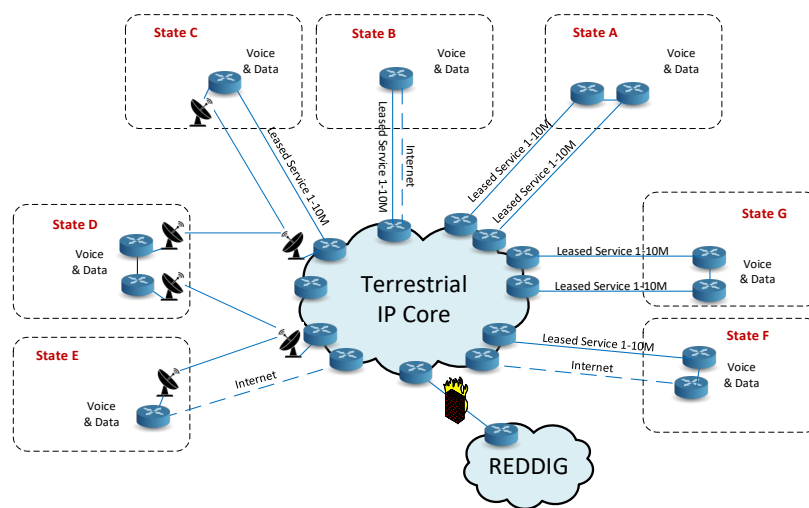
1.2 There is an increasing demand for IP-based communications to support automation and collaboration as countries implement greater data driven applications. The past 25 years have seen a dramatic expansion in the telecommunications infrastructure worldwide, to support public and private data communications, with a corresponding decrease in cost. The environment that led to requirements for the MEVA architecture must now be reassessed as we consider the network requirements to support ATM needed for the next ten years.

1.3 This paper presents progress on the Caribbean Air Navigation Services Network (CANSNET) CANSNET and comments on the interconnection to the E/CAR network.

2. Discussion

2.1 The Thirty-Eighth MEVA Technical Management Group Meeting (MEVA/TMG/33) in 2018 in Curacao, created an Ad-Hoc Group composed of COCESNA, Cuba, Dominican Republic, and United States to address the requirements for a replacement network for MEVA III. Projections suggested that apart from increased bandwidth, the infrastructure needed better availability through redundancy.

2.2 The group issued a Request for Information (RFI) in 2020 and summarized results in 2021. They found that a core telco-grade terrestrial Multi-Protocol Label-Switched (MPLS) network would provide for the bandwidth needs but States might combine different network access methods to achieve the desired redundancy.



2.3 In creating the technical requirements for the new network, the Ad-Hoc group recognized the need to connect to other regional networks at the telecommunications provider level. A requirement to connect to the South American (SAM) REDDIG network has been included to support interconnection to Columbia and Venezuela as well as other SAM destinations. Requirements for connection to the E/CAR network at San Juan, Puerto Rico remain as they are for MEVA III. Other E/CAR connection methods can be explored in the future.

2.4 At the Tenth North American, Central American and Caribbean Directors of Civil Aviation meeting (NACC/DCA/10), held at Fort-de-France, Martinique, France 21-23 June 2022, there was agreement to invite the ICAO Technical Cooperation Bureau (TCB)¹ to conduct the bidding process for a CANSNET service provider.

2.5 Although the TCB manages the entire process, groups engaging the TCB are permitted to perform the Technical Evaluation. The Ad-Hoc Group elected to have the MEVA TMG² perform the Technical Evaluation with an Evaluation Task Force, and along with the technical requirements, created technical evaluation criteria.

¹ Now renamed the ICAO Capacity Development and Implementation (CDI) Bureau.

² Note that the MEVA TMG is now incorporated in the ICAO Working Group 'NACC/W''G/COMM'

2.6 At the Thirty-Eighth MEVA Technical Management Group Meeting (MEVA/TMG/38) in Mexico City, 11-14 July 2023, the technical requirements, and evaluation criteria were approved for the ICAO bidding process that will commence shortly. The new network is intended to be operation before the expiration of the MEVA III contract in March 2025.

2.7 At the Thirty-Ninth Meeting of the North American, Central American and Caribbean Working Group Communications Task Force (NACC/WG/COMM/TF/39) in Mexico City, 7-10 May 2024, a review of the technical and budgetary evaluation of CANSNET proposals submitted by bidding suppliers was conducted.

2.8 To facilitate the implementation timeline of CANSNET, an extension of the MEVA III contract was proposed with a contract expiration date of March 2026. ICAO would forward MEVA III contract extension documentation to each of the MEVA III member states/organizations. All member states/organizations are required to sign the contract extension for the extension to take effect.

2.9 At the Fortieth Meeting of the North American, Central American and Caribbean Working Group Communications Task Force (NACC/WG/COMM/TF/40) in Mexico City, 23 to 26 July 2024, CANSNET program development milestones were reviewed based on Frequentis' approved proposal for Project RLA 22801 (CANSNET).

2.10 CANSNET member states/organizations were to agree on the technical, operational, administrative, and financial criteria to serve as the basis for each member state/organization to approve and execute individual CANSNET contracts while leveraging the project analysis framework to clarify requirements specific to each member state/organization.

2.11 Frequentis provided a technical presentation on mandatory services, optional services, services per station, and proposed delivery schedule. Additionally, Frequentis discussed upgraded hardware and technology including VCX-IP, SkyWan 5G, and NetBroker.

2.12 Frequentis presented requirements on a proposed interconnection between the REDDIG and CANSNET networks.

2.13 At the NACC/WG/COMM/TF/40 report explanatory meeting held virtually with CANSNET member states/organizations on 27 September, 2024, 15 December, 2024 was announced as the due date for member states/organizations to complete signoff of the individual member state/organization contracts.