



- Agenda Item 4: Air Navigation Matters**
- 4.2 Follow-up on the Implementation of the NAM/CAR Regional Performance Based Air Navigation Plan (RPBANIP):**
- **Progress reports of the former Sub-regional Working Groups on AIM, ATM and CNS areas.**

**MEVA II-ECAR AFS NETWORK INTERCONNECTION ACTIVITIES**

(Presented by the MEVA TMG Coordinator)

<b>SUMMARY</b>	
This Working paper presents the progress and results of the work of the E/CAR/NTG and the MEVA Technical Management Group (TMG) regarding the E/CAR – MEVA II interconnectivity.	
<b>References:</b>	
<ul style="list-style-type: none"> <li>• Report of Twenty-fifth MEVA Technical Management Group Meeting (MEVA TMG/25), Mexico City, Mexico, 8 to 11 January 2013.</li> <li>• Report of Third Meeting of the Eastern Caribbean Network Technical Group (E/CAR/NTG3), Christ Church, Barbados, 5 to 6 June 2012</li> <li>• Report of Fourth Eastern Caribbean Network Technical Group (E/CAR/NTG/4), Martinique, French Antilles, France, 17 to 18 June 2013</li> <li>• 3rd and 4th MEVA II – E/CAR Network Interconnection Teleconferences</li> </ul>	
<b><i>Strategic Objectives</i></b>	<i>This information paper is related to Strategic Objectives:          A. Safety – Enhance global civil aviation safety          C. Environmental Protection and Sustainable Development of Air Transport</i>

**1. Introduction**

1.1 During the MEVA TMG/22 Meeting the importance to start exchanging information for the interoperation of the MEVA II and the E/CAR AFS Network was proposed and Conclusion TMG/22/09 – *Regional Interconnection/ Integration with the E/CAR Network* was formulated.

1.2 The E/CAR/NTG/03 Meeting identified the importance to discuss how the interconnection between the existing MEVA II Network and the E/CAR AFS Network could be achieved. In this regard, the meeting proposed a teleconference between Sint Maarten, United States and the E/CAR rapporteur with the assistance of ICAO to discuss initial ideas for this interconnection. Decision E/CAR/NTG/3/02 - *Regional Interconnection of the MEVA III and the E/CAR Networks* was formulated to promote the exchange of information for this regional interconnection between the E/CAR and the MEVA Network (MEVA III). Discussions continued during the E/Car/NTG/04 and updates were provided during the Meeting.

1.3 During the MEVA TMG/25 Meeting, the E/CAR/NTG Rapporteur presented the progress and results of the work of the E/CAR/NTG and the MEVA regarding the E/CAR AFS – MEVA II network interconnectivity and the progress of the E/CAR Radar sharing project. It was agreed that San Juan, Puerto Rico would be the point of interconnection for both networks since San Juan has both a MEVA node and an E/CAR AFS Network node. The interconnectivity would allow St. 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 in addition to the exchange of radar between St. Maarten and San Juan. Conclusion 25/09 *MEVA II-E/CAR AFS Network Interconnection* was formulated.

## 2. Discussion

2.1 The up-to date list of telecommunication requirements for the MEVA II – E/CAR Network interconnection agreed from teleconferences:

	ATS Units	Interconnection MEVA II-E/CAR AFS Network (San Juan )		Technical details
<b>SINT MAARTEN/ JULIANA APP</b>	Anguilla (Clayton J. Lloyd International)	√		2 PBX service from ECAR-analog voice line
	Antigua (V. C. Bird APP)	√	√	Serial line, RS232-V.35
	Saint Kitts (Robert L. Bradshaw TWR)	√		
	PIARCO ACC		√	3 available Serial lines, RS232-V.35

2.2 A new dedicated data serial circuit would be required for the radar exchange between San Juan and St Maarten. Another option would be to use the same radar circuit been used by United States and Sint Maarten for Radar Data.

2.3 Two follow-up teleconferences between United States, St. Maarten, Trinidad and Tobago and ICAO have taken place since the MEVA TMG/25 Meeting. Minutes from such teleconferences are available at <http://www.mexico.icao.int/Meva/MEVAIIINetwork.html>.

2.4 During the 4<sup>th</sup> MEVAIII-E/CAR AFS Network interconnection Teleconference held on 22 March 2013, the following evaluation on the implementation of the voice and data circuits was made:

a) *Evaluation of activities for voice circuits*

- Trinidad and Tobago, St. Maarten and Anguilla agreed to identify the best cost-effective solution for the implementation of the ATS voice circuits Sint Maarten – Anguilla (ATS communication through Sint Maarten network or through E/CAR AFS Network);
- Sint Maarten informed on the implementation status of the ATS voice circuits through San Juan to communicate with the E/CAR (2 with Anguilla, 1 with Antigua and 1 with St. Kitts). St Maarten placed the order with the MEVA Service Provider and it reviewing the service order provided by the MEVA Service Provider;
- United States is coordinating with the MEVA Service Provider the implementation of the ATS circuits from Sint Maarten to San Juan. The necessary equipment has already been implemented in San Juan MEVA node;
- Trinidad and Tobago indicated the need for an additional card in the E/CAR AFS router in San Juan. Everyone agreed that the goal for implementing all the ATS voice circuits is first semester 2013. In this regard, ACT 04/04: Trinidad and Tobago agreed to implement the necessary equipment in the San Juan ECAR AFS node (equipment and site visit) by the end of April; and
- United States informed of the operational need and use of the current AIFSS voice circuits as follows:

<b>SAN JUAN –AIFSS</b> <b>Ext 1861-1863</b>	Montserrat	One way
	Barbados	One way
	Saint Lucia (Hewanorra)	One way
	Martinique	One way
	Dominica – Melville Hall	One way
	Saint Vincent	One way
	Antigua	Two way
	Saint Kitts	Two way
	Piarco	Two way
	Sint Maarten	One way- SJU only receives call and is unable to make calls.

b) *Agreements for radar exchange*

- Sint Maarten sent their theoretical radar data coverage to Trinidad and Tobago and ICAO, which indicated some limitation to the NE part of Sint Maarten but at low flight levels. United States is still evaluating the availability of their radar coverage information. United States will submit their radar theoretical coverage (FL 10, 30, 50, 100, 150, 200 and 300) and radar technical information of San Juan and Virgin Island radars to the rest of participants and ICAO for further evaluation on the effective coverage available for the users;
- The draft MoA between United States and Sint Maarten for radar data sharing is being review by the Legal Department of Sint Maarten. No implementation schedule for the radar data exchange between Sint Maarten and San Juan can be agreed until signature of the MoA;
- Sint Maarten is consulting their System Manufacturer/ Raytheon on the technical implications to share their radar feed and integrate the radar feed from San Juan. Once this information is available an economical proposal for radar data sharing (amplification/duplication of the signal from San Juan) will be submitted to Trinidad and Tobago; and
- Trinidad and Tobago indicated they need at least 1 month notice prior to integrating the radar feed in PIARCO, since the PIARCO System manufacturer is to carry out the integration work.

2.5 The MEVA II – E/CAR AFS Network interconnection requirements discussed have been included in the already released MEVA III Tender Package.

### 3. **Conclusion**

3.1 The MEVA II – E/CAR AFS Network interconnection implementation is a key process for optimizing service connectivity and efficient delivery of services and is an on-going process carried out by the active participation of the MEVA II and ECAR AFS Network members