



International Civil Aviation Organization

North American, Central American and Caribbean Office (NACC)

**GREPECAS CAR Project D – ATN infrastructure in the CAR Region and its ground-ground and ground-air applications**

Santo Domingo, Dominican Republic, 27 September 2013

- Agenda Item 2: ATN Infrastructure in the CAR Region and its Ground - Ground and Ground – Air applications**  
**2.1 Revise/Update of CAR/SAM Router Plan**

**REVISE/UPDATE OF CAR ROUTER PLAN**

(Presented by FAA)

**SUMMARY**

This Working Paper invites the Meeting to review the CAR Router Plan in light of the changes to the telecommunication infrastructure and the evolution of the operational needs for exchange of information within the CAR Region and with the adjacent regions, as well as the rapid IP Network structure being implemented in the Region.

**References:**

- Fifth Meeting of the ATN Task Force (ATN/TF/05), Mexico City; Mexico, 12 - 13 June 2009
- Fifteenth Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS 15), Rio de Janeiro, Brazil, 13 – 17 October 2008

**Strategic Objectives**

*This working paper is related to Strategic Objectives:  
A. Safety – Enhance global civil aviation safety  
C. Environmental Protection and Sustainable Development of Air Transport*

**1. Introduction**

1.1 During the fifth GREPECAS ATN Task Force (ATN/TF/5) Meeting, a review of the expected ATN infrastructure was reviewed as presented in the current CAR/SAM ANP CNS Table 1Ba– CAR/SAM regional Plan of ATN router, as adopted by GREPECAS/15. After analyzing the Internetwork ATN Routers for CAR/SAM Backbone, the ATN/TF/5 considered that changes to the ATN CAR/SAM backbone were not necessary. Therefore, no updates were made to Table CNS 1Ba for the CAR nor SAM Region.

1.2 The first Meeting of the D-Project did not review the ATN router Plan, considering that a more thorough review could be made based on the adoption of an IP backbone network.

## 2. Discussion

2.1 Since the Plan was last reviewed, the implementation of AMHS has started and several routers are operational and several regional networks of the CAR region has evolved to an IP based infrastructure as Central America, Eastern Caribbean and the future MEVA III Network, as well as some national networks, for example: Dominican Republic, Guatemala, etc. However, these routers were not necessarily implemented at the location and connectivity indicated in the Plan. This is due to the operational constraints unforeseen at the time of the last review. The current CAR Router Plan is attached as **Appendix A**.

2.2 The FAA is proposing to relocate the Miami and San Juan routers to Atlanta so that the Plan reflects as much as possible the actual router's implementation. **Appendix B** to this working paper shows the propose changes.

2.3 Similarly, the ATN router Plan to be consistent with the IP backbone network, should reflect the contingency means/needs (for ex. AFTN Contingency) and the message traffic forecast to be carried by the next for the next coming years.

## 3. Suggested Actions

3.1 The Meeting is invited to:

- a) review the CAR ATN router Plan information;
- b) identify the changes need to be consistent with the existing and future IP Networks and to satisfy the operational needs and contingency requirements for the CAR Region;
- c) agree to the changes proposed by the FAA, and
- d) forward to the ICAO NACC Office proposed corrections for their node or network.

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APPENDIX A

**TABLE/TABLA CNS 1Ba –ROUTERS REGIONAL PLAN / PLAN REGIONAL DE ENCAMINADORES  
REGION CAR/ CAR REGION**

Administration and Location/ Administración y Localidad	Type of Router / Tipo de Encaminador	Type of Interconnection / Tipo de interconexión	Connected Router- Encaminador Conectado	Link Speed- Velocidad del enlace	Link Protocol- Protocolo del Enlace	Via Vía	Target Date / Fecha Meta	Remarks Observaciones
1	2	3	4	5	6	7	8	9
Anguilla	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
Antigua	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
Aruba	IP	Intra Regional	Jamaica (Kingston), Curacao	TBD	IPv4	MEVA	TBD	
Bahamas/Nassau	IP	Intra Regional	Haiti (Port –of-Prince), USA (Miami)	TBD	IPv4	MEVA	TBD	
Barbados	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
Belice/Belice	IP	Intra Regional	Honduras – COCESNA (Tegucigalpa)	TBD	IPv4	CAMSAT	2008	
British Virgin Islands (Tortola)	IP	Intra Regional	USA (Miami)	TBD	IPv4	MEVA	TBD	
Cayman I.	IP	Intra Regional	Jamaica (Kingston), Cuba (La Habana)	TBD	IPv4	MEVA	TBD	
Costa Rica/San José	IP	Intra Regional	Honduras – COCESNA (Tegucigalpa)	TBD	IPv4	CAMSAT	2008	
Cuba/La Habana	IP	Intra Regional	Haiti (Port –of-Prince), USA (Miami), Jamaica (Kingston), Cayman I., Honduras – COCESNA (Tegucigalpa)	TBD	IPv4	MEVA	TBD	
			Mexico	TBD	IPv4	TBD	TBD	

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1	2	3	4	5	6	7	8	9
Curacao	IP	Intra Regional	Aruba, Dominican Republic (Sto. Domingo), Haiti (Port of Prince), Jamaica (Kingston), Puerto Rico (San Juan)	TBD	IPv4	MEVA	TBD	
Dominican Republic/ Sto. Domingo	IP	Intra Regional	Haiti (Port of Prince), Puerto Rico (San Juan), Curacao / Miami	TBD	IPv4	MEVA	TBD	
El Salvador/San Salvador	IP	Intra Regional	Honduras – COCESNA (Tegucigalpa)	TBD	IPv4	CAMSAT	2008	
French Antilles (Martinique)/ Fort-au-France	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
French Antilles (Guadalupe)/ Point-a Pitre	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
Grenada	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
Guatemala/La Aurora	IP	Intra Regional	Honduras – COCESNA (Tegucigalpa)	TBD	IPv4	CAMSAT	2008	
Haiti/Port au Prince	IP	Intra Regional	Bahamas, Cuba (La Habana), Curacao, Dominican Republic (Sto. Domingo), Jamaica (Kingston)	TBD	IPv4	MEVA	TBD	
Honduras/Tegucigalpa COCESNA	IP	Intra Regional	Belice (Belice), Costa Rica (San Jose), Guatemala (La Aurora), Honduras (San Pedro Sula), Nicaragua (Managua), Cuba (La Habana), NAM (Atlanta), Panama, USA (Miami)	TBD	IPv4	CAMSAT	2008	
Honduras/ San Pedro Sula	IP	Intra Regional	Mexico	TBD	IPv4	TBD	TBD	
		Intra Regional	Honduras – COCESNA (Tegucigalpa)	TBD	IPv4	CAMSAT	2008	

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1	2	3	4	5	6	7	8	9
Jamaica/Kingston	IP	Intra Regional	Aruba, Cayman I., Cuba (La Habana), Curacao, Haiti (Port of Prince).	TBD	IPv4	MEVA	TBD	
Mexico	IP	Inter/ Intra Regional	Cuba (La Habana), Honduras (Tegucigalpa), NAM (Atlanta),	TBD	IPv4	TBD	TBD	
Montserrat	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
Nicaragua Managua	IP	Intra Regional	Honduras – COCESNA (Tegucigalpa)	TBD	IPv4	CAMSAT	2008	
Puerto Rico/San Juan	IP	Inter/ Intra Regional	Curacao, Dominican Republic (Sto. Domingo), USA (Miami), SAM (Caracas), Trinidad and Tobago (Piarco)	TBD	IPv4	MEVA	TBD	
St. Kitts & Nives	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
St. Lucia	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
St.Marteen	IP	Intra Regional	USA (Miami)	TBD	IPv4	MEVA	TBD	
St. Vincent	IP	Intra Regional	Trinidad and Tobago (Piarco)	TBD	IPv4	Eastern Caribbean Network	TBD	
Turks & Caicos/Grand Turk	IP	Intra Regional	USA (Miami)	TBD	IPv4	MEVA	TBD	

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1	2	3	4	5	6	7	8	9	
Trinidad and Tobago/Piarco	IP	Intra Regional	Angula, Antigua, Barbados, French Antilles (Fort-au-France, Point-a-Pitre), Grenada, Monserrat, St. Kitts & Nives, St. Lucia, St. Vincent	TBD	IPv4	Eastern Caribbean Network	TBD		
			Intra Regional	Puerto Rico (San Juan)	TBD	IPv4	TBD	TBD	
			Inter Regional	EUR (Madrid),	TBD	IPv4	TBD	TBD	
		Inter Regional	SAM (Caracas)	TBD	IPv4	REDDIG	TBD		

APPENDIX B

