



- Agenda Item 2: Review of Air Navigation Matters**
2.2 Air Navigation specific activities:
2.2.5 Aeronautical Information Management (AIM)
• ***Review of AIS Committee Report***

TRAINING FOR AIS PERSONNEL IN THE E/CAR

(Presented by the Rapporteur of the E/CAR AIS Committee)

SUMMARY	
This working paper proposes a training seminar in the E/CAR for AIS personnel.	
References:	
• Report of the 1st Meeting of the Caribbean Working Group • Report of the 20th Meeting of E/CAR Directors of Civil Aviation • Report of the 30th Meeting of the E/CAR WG	
<i>Strategic Objectives</i>	<i>This working paper is related to Strategic Objectives A and D.</i>

1. Introduction

1.1 The 1st Meeting of the CAR/WG convened in Port of Spain, Trinidad and Tobago, 21 to 23 June 2007, at Agenda Item 5, paragraph 5.9 acknowledged the growing importance of AIS worldwide and that the growth in the E/CAR has not been able to keep pace with ICAO'S recommended forward movement in this area. In general terms, this point was made and formed part of the discussion at the 30th Meeting of the E/CAR WG and the 20th Meeting of Directors of Civil Aviation. Consequently, it was recognized that some action was needed to evaluate the status of AIS in the E/CAR region.

2. Discussion

2.1 The Report of the 20th Meeting of Directors of Civil Aviation at Appendix A to Item 3 Conclusion 30/03 (c) supported the recommendation of a tour of E/CAR States by the Chief Technical Officer AIS of PIARCO for the purpose of assessing the status of AIS in these States. The tour was completed during the month of August 2007 and confirmed the premise that the AIS in the E/CAR had a number of deficiencies. The report of the CTO is attached in the **Appendix** (for ease of reference). From this report, of major concern were the issues pertaining to human resource development and training.

2.2 Recognizing that training and development of AIS personnel is essential if the E/CAR is to achieve the strategic objectives set for the future development of AIS and in particular to successfully transition to AIM, a seminar supported by ICAO is tentatively planned for the second half of 2010 in Trinidad and Tobago.

3. Action Required

3.1 The meeting is requested to support the proposed seminar.

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APPENDIX

REPORT OF THE CHIEF TECHNICAL OFFICER PIARCO AIS ON AIS/MAP DEFICIENCIES WHICH HAVE AN IMPACT ON CNS/ATM SYSTEMS IN THE E/CAR REGION

SUMMARY

This report provides recommendations by the Chief Technical Officer Piarco AIS/MAP on deficiencies identified on a Technical visit to AIS offices of the Eastern Caribbean States during the period 13th August – 4th September 2007

Reference:

30th EASTERN CARIBBEAN WORKING GROUP MEETING,
Agenda Item 4.

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1. INTRODUCTION

1.1 In keeping with Agenda Item 4 of the 30th. EASTERN CARIBBEAN WORKING GROUP (30th. E/CAR WG) MEETING, the Chief Technical Officer (CTO) Piarco AIS/MAP visited the ten (10) E/CAR States, which included eleven (11) AIS AD units. These units are listed in **Appendix A**.

1.2 These visits were conducted during the period 13th August - 4th September 2007. The objective is to report on the issues identified in agenda item 4 and to present the findings and recommendations of this report at the 21st Meeting of the Directors of Civil Aviation of the Eastern Caribbean States to be held in Tortola, British Virgin Islands, 11th to 14th February 2008.

The report focuses on the following AIS issues which have been formulated into conclusions 30/06 and 30/07 of agenda item 4 of the 30th. E/CAR WG meeting.

- a) **CONCLUSION 30/06 STATUS OF IMPLEMENTATION OF THE E/CAR AIS/MAP SYSTEMS**
- b) **CONCLUSION 30/07 HARMONIZATION OF THE WGS 84 BOUNDARY COORDINATES OF MAIQUETIA AND PIARCO FIRs**

2. AREAS OF EXAMINATION BY THE CTO, PIARCO AIS

From **CONCLUSIONS 30/06** and **30/07**, the areas of examination decided upon were as follows:

- 1) Organizational Structure and efficiency of AIS office;
- 2) Resources of States AIS Units;
 - Facilities & Equipment (Degree of computerization)
 - Level of training, minimum staff & accommodation
- 3) Level of documentation (Basic Reference Material, BRM indicated in Doc 8126);
- 4) Status of implementation of a quality assurance program;
- 5) Implementation of WGS84 coordinates in E/CAR States;
- 6) Implementation of WGS 84 border coordinates and
- 7) Implementation of AIS Automation Plan.

2.1 *Organizational Structure and efficiency of AIS Office*

The new requirements of ATM, RNAV, RNP and other automated navigation system will depend extensively on the provision of timely relevant, accurate and quality assured information that allows the aviation community to make informed decisions.

In this regard the traditional role of AIS will evolve into an information management service with changing duties and responsibilities.

The AIS of the Eastern Caribbean has to keep pace with this changing environment.

ICAO has given guidelines for the training and organizational requirements for AIS (AIS/MAP SG10).

There is an urgent need for the states of the region to provide dedicated and trained staff to provide the functions of AIS.

During the visit to the AIS of the various ECAR states the level of staffing and training was found to be inadequate to meet the demands of AIS in this changing environment.

2.2 *Resources of States AIS Units*

a) *Facilities & Equipment*

The Thales IAT AFTN terminal units have been updated with template driven software for Flight Planning and NOTAM dissemination.

The equipment available at most states were sufficient for the purposes of providing AIS services, however due to limited space availability in some states services such as photocopying, printing, scanning and fax were sourced via the Airport Managers (APMs) or Senior Air Traffic Controllers (SATCOs) office. This was an undesirable and inefficient situation.

Internet services were unavailable at some stations. The use of communication between states via internet should be encouraged.

b) *Level of training (AIS 021), minimum staff and accommodation* Level of staffing and training at all states were found to be inadequate for the provision of AIS services.

In most states the area available for AIS staff was sufficient, however in at least four (4) states AIS functioned in the tower area and as such full AIS services cannot be performed adequately.

There is an urgent need to provide dedicate staffing as outlined by guidelines provided in the AIS Manual Document 8126. Training should be to the minimum standard required by ICAO, i.e. AIS 021 Course.

2.3 *Level of documentation (Basic Reference Material – BRM)*

AIS Manual Document 8126 outlines the manuals that are required to be present in an AIS Office. On inspection, it was found that all States with the exception of Trinidad and Tobago and Barbados did not have the full compliments of these documents. The documents found were mostly outdated. There was no established mechanism where Airport Managers (APMs) or Senior Air Traffic Controllers (SATCOs) could requisition these documents from the relevant government ministry. In cases where these documents were requested, it was learnt that it took a considerable length of time for them to reach the AIS.

The Charts available were also found to be extremely outdated.

2.4 *Status of implementation of a quality assurance programme*

No state with the exception of Trinidad and Tobago has begun a programme to implement quality system as required by ICAO. Due to the staffing situation at these states there is no personnel available to dedicate the time necessary for the implementation of a quality assurance programme.

All States were provided with an electronic copy of the ICAO Guidance Manual Parts 1, 2, 3 & 4 for the implementation of an AIS/MAP quality system in CAR/SAM regions. In addition, staff was given instructions on how to access the relevant areas of the ICAO website for updates.

2.5 *Implementation of WGS84 coordinates in E/CAR States*

This project is 95% complete. Most E/CAR coordinates have been converted to WGS84 with the exception of a few aerodromes which have not been surveyed to date, e.g.

- Canefield, Dominica
- Lauriston, Grenada, and
- Bequia, St. Vincent

Coordination with Venezuela to verify the accuracy of the Enroute boundary coordinates between Piarco and Maiquetia continues to be a problem as we are unable to have fruitful dialogue thus far. The ICAO Regional office is aware of this problem and has indicated their willingness to help. It will be appreciated if the Regional Office can intervene in this matter in order to obtain a timely solution.

2.6 *Implementation of AIS Automation plan*

With the proposed movement from AIS to AIM the E/CAR Region has to develop a strategic plan of action for this migration. Automation of services such as Flight Planning, NOTAM Processing and the Integrated AIP need to be a priority for this transition. With the proposed upgrade of the E/CAR network using VSAT service automation of these services is possible.

The E/CAR AIS Committee needs to meet and discuss appropriate action plans in order to ensure the implementation of the AIS Automation Plan of the E/CAR States develop and implement as depicted in 2.6 of this report.

3. **RECOMMENDATIONS**

The following are the recommendations of this report.

#	Task	Corrective Action Proposed	Action Office
1	Training in AIS 021	Priority should be given to the training of the current eleven (11) dedicated AIS staff involved in the provision of AIS/MAP services in E/CAR States. Training to the level of AIS 021 course is recommended in the first instance until such time when the revised AIS Course becomes available	Manager CATC, CTO & EMANS of T&T, and APMs & SATCOs of E/CAR States
2	Organizational Structure & efficiency	- In cases where an APM has direct responsibility for AIS, It is recommended that a SATCO, Ops Officer, AIS Specialist or equivalent, should be given this responsibility in order to improve operational efficiency. This measure is recommended as if was found that APMs are usually burdened with other Administrative matters which are given priority over AIS matters - Based on the resource requirements contained in Document 8126 and our own observations, there is an urgent need to recruit a combined total of forty four (44) additional dedicated AIS staff in order to provide an effective and efficient service in the States visited. This figure represents a significant 231% increase in the present number of dedicated AIS staff in all E/CAR States which is a total of nineteen (19) - Staff providing AIS/MAP services should be adequately compensated in order to encourage them to remain in AIS/MAP	APMs & SATCOs of E/CAR States
3	Level of documentation	APMs and SATCOs of E/CAR States to implement a system which will ensure that States have current copies of all the required documentation (BRM) listed in Document 8126 in the AIS work area.	APMs & SATCOs of E/CAR States
4	Access to internet	Access to be given to staff involved in the performance of AIS/MAP duties so that they can access the relevant ICAO Guidance materials presented at E/CAR, SG and GREPECAS meetings.	APMs & SATCOs of affected States
5	Quality system	1) One (1) member of staff at the level of a SATCO, Operations Officer, AIS Specialist, or equivalent be given the responsibility and the resources necessary for implementing and maintaining the quality system in each E/CAR State 2) A series of ICAO workshops for States of the E/CAR on: - interpretation of the ISO 9001 standard - Quality management - internal quality audits - Guidance on the implementation of an integrated quality management software solution for AIS/MAP	DG, EMANS & CTO of T&T, and Rapporteur for the E/CAR AIS Committee
6	AIS Automation Plan	AIS Committee to meet and discuss plan	Rapporteur

Table 1: OBSERVED RESOURCES OF E/CAR STATES AIS UNITS

STATE	RESOURCES									
	a) Facilities & Equipment						b) Level of training, minimum staff & accommodation (AD units)			
	PC & printer	Internet	Photo copier	Scanner	Phone	Fax	Current dedicated staff T/U	Recommended (including one SATCO, Operations Officer, AIS Specialist, or equivalent)	Additional Staff required	Office (sq.ft) R/O
Grenada	2 PCs	no	yes	no	yes	yes	2/2	5	1	150/375
St. Vincent	3 PCs	yes	yes	yes	yes	no	1/	5	4	150/220
Barbados	2 PCs	yes	yes	yes	yes	yes	1/3	10	6	300+/364
Castries	2 PCs	yes	yes	no	yes	no	0/3	4	1	150/450
Hewanorra	1 PC	yes	no	no	yes	no	2/1	6	3	150/240
Melville Hall, Dominica	1 PC	no	yes	no	yes	no	0/0	4	4	150/ none
Montserrat	2 PCs	yes	yes	no	yes	yes	0/0	6	6	150/ none
Antigua	2 PCs	yes	yes	no	yes	yes	0/0	8	8	300+/ 120
St. Kitts	1 PC	yes	yes	yes	yes	yes	1/2	5	2	150/1155
Nevis	1 PC	yes	yes	no	yes	no	0/0	5	5	150/ none
Anguilla	2 PCs	no	yes	no	yes	no	1/	5	4	150/220
TOTAL							8/11	63	44	

Legend:T: Number of **Dedicated Staff** trained in AIS 021

U: Number still to be trained in AIS 021

R: ICAO Recommended Office space (sq.ft)

O: Office space (sq.ft) recorded during visit

Note:

1) denotes only one dedicated staff

2) Figures and text in **red** indicate values below recommended minimum.3) Barbados and Antigua were considered as Major AIS AD units (24 hours operation), as compared to all the others which were considered as Minor AIS AD units with limited hours of operation.

APPENDIX A
SCHEDULE OF VISITS TO E/CAR STATES

#	STATE	No. of Days	PERIOD
1	Grenada, TGPY	2	13 Aug – 14 Aug
2	ST. Vincent, TVSV	2	15 Aug – 16 Aug
3	Barbados, TBPB	3	17 Aug – 19 Aug
4	Castries, St. Lucia, TLPC	1	20 Aug
5	Hewanorra, St. Lucia, TLPL	1	21 Aug
6	Melville Hall, Dominica, TDPD	2	22 Aug – 23 Aug
7	Montserrat, TRPG	2	24 Aug – 25 Aug
8	Antigua, TAPA	3	26 Aug – 28 Aug
9	St. Kitts, TKPK	2	29 Aug – 30 Aug
10	Nevis, TKPN	2	31 Aug – 01 Sep
11	Anguilla, TQPF	3	02 Sep – 04 Sep