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

WORKING PAPER

Third Eastern Caribbean Civil Aviation Technical Group Meeting (E/CAR/CATG/3)
Basseterre, Saint Kitts and Nevis, 19 to 21 October 2016

Agenda Item 3:	**Air Navigation Matters**
	3.1 Global/Regional Air Navigation Developments
	3.1.3 Integrated Single Aeronautical Information Management (AIM) Quality Management System (QMS) and Flight Planning Issues and Plan for AIM Transition Meeting/Workshop (QMS, FPL, AIM) Report

E/CAR AIM, QMS, AND FPL MEETING WORKSHOP

(Presented by the Secretariat)

EXECUTIVE SUMMARY	
This working paper presents the results and outcomes of the E/CAR AIM Workshop conducted to streamline the AIM QMS implementation and the FPL error resolution.	
Action:	Suggested actions are presented in section 3
Strategic Objectives:	• Safety • Air Navigation Capacity and Efficiency • Environmental Protection
References:	• Twenty-sixth Directors of Civil Aviation of the Eastern Caribbean Meeting (E/CAR/DCA/26), New Orleans, United States, 1 - 3 December 2015

1.   Introduction

1.1   The E/CAR Region has been characterized for the regional collaboration and mutual support on the implementation of services with examples as the E/CAR AIP, ECCAA agreement, CASSOS organization among some examples.

1.2   The Regional collaboration was brought a cost-effective way of implementing the services while maintaining a satisfactory level of quality; such experience is being promoted with the Centralized File Planning System and the Single E/CAR AIM QMS System.

2.   Discussion

2.1   During the E/CAR/DCA/26 Meeting, the E/CAR/CATG Chairperson informed on the achievements in the implementation of the Single E/CAR AIM Quality Management System (QMS), PIARCO NOTAM/AIS Contingency Plan and Filed Flight Plan (FPL) Error Resolution in the E/CAR area; highlighting:

- The agreement to implement a single AIM QMS certification for the Eastern Caribbean: Information and documentation has been exchanged and the fourth quarter of 2016 is anticipated for ISO 9001 2008 certification of their AIM QMS. In addition, Trinidad and Tobago is currently awaiting comments on a proposed amendment to the existing (LoAs), which have been prepared to reflect the inclusion of AIM QMS requirements
- The AIM Committee has convened a meeting to be hosted by Antigua and Barbuda from 2 to 4 March 2016 in order to develop action plans to assist States in meeting the POS targets, discuss proposed changes to the AIM LOAs in relation to the implementation of AIM QMS requirements; and review NOTAM, flight planning and Meteorology (MET) filing procedures
- The Meeting was informed of the PIARCO NOTAM/AIS Contingency Plan that will be implemented in accordance with the agreement between the Directors General of Trinidad and Tobago Civil Aviation Authority (TTCAA) and the Dutch Caribbean Air Navigation Service Provider (DC-ANSP) signed in 29 April 2014. The operational readiness demonstration of this implementation is expected for July 2016 and commissioning and full operation by the end of the third quarter 2016
- The results on the resolution of missing/duplicate and erroneous flight plans: E/CAR participated in a data collection and analysis activity from 13 September to 4 October 2015. Similarly, the progress on the implementation of the centralized FPL system was provided.

2.2   In this regard the E/CARDCA/26 Meeting approved the following conclusion:

**CONCLUSION
E/CAR/DCA/26/07   E/CAR AIM IMPLEMENTATION MEETING**

That, in other to support and expedite the implementation of AIM matters in the E/CAR area, including the activities for phase 1 of the AIM implementation and the PIARCO NOTAM/AIS Contingency Plan actions:

a)   E/CAR States and Territories designate their corresponding AIM experts/participants to the E/CAR AIM Meeting to be held in Antigua and Barbuda in March 2016; and

b)   Antigua and Barbuda cover the expenses of the participation of ICAO for their attendance and support to this meeting.

2.3   Following this conclusion, the aforementioned event was conducted from14 to 18 March 2016, kindly hosted by Antigua and Barbuda, with an attendance of 20 representatives of 10 E/CAR States and 1 from C/CAR area. **Appendix** to this paper present the summary of discussion and recommendations agreed from this event.

3.   Suggested Action

3.1   Based on the above, the meeting is invited to:

a)   review the information presented in this working paper;

b)   E/CAR States to determine the next actions to complete the Single E/CAR AIM QMS System and other AIM/ FPL improvements.

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INTEGRATED SINGLE AERONAUTICAL INFORMATION MANAGEMENT (AIM) - QUALITY MANAGEMENT SYSTEM (QMS) AND FLIGHT PLANNING ISSUES AND PLANS FOR AIM TRANSITION MEETING/WORKSHOP
(QMS, FPL, AIM TRANSITION MEETING/WORKSHOP)

FINAL

SUMMARY OF DISCUSSIONS

(ST. JOHN´S, ANTIGUA AND BARBUDA, 14 TO 18 MARCH 2016)

Prepared by the Secretariat   March 2016

INTEGRATED SINGLE AERONAUTICAL INFORMATION MANAGEMENT (AIM) - QUALITY MANAGEMENT SYSTEM (QMS) AND FLIGHT PLANNING ISSUES AND PLANS FOR AIM TRANSITION MEETING/WORKSHOP (QMS, FPL, AIM TRANSITION MEETING/WORKSHOP)

SUMMARY OF DISCUSSIONS

Date:	14 to 18 March 2016
Venue:	St. John´s, Antigua and Barbuda, at the Halcyon Resort facilities.
Participants:	The workshop was attended by 20 representatives of 10 E/CAR States and 1 from C/CAR area. The list of participants is presented in **Attachment A**.

1.   Introduction

1.1   The main objective of the Meeting/Workshop was to provide a general appreciation of Quality Management and to introduce the requirements related to the integrated E/CAR AIM QMS to the E/CAR States. This endeavour represented one of the key steps in achieving the target in the *Port-of-Spain Declaration* of regional AIM QMS implementation by December 2016. Some of the Agenda items were included in the following key objectives:

a)   Define the responsibilities and accountabilities with respect to the AIM QMS
b)   Provide an overview of the QMS requirements
c)   Explain the importance of a QMS in the context of AIM
d)   Explain Quality Management principles and ISO 9001 Standard requirements
e)   Explain the procedures for handling non-conformities, corrective and preventive actions
f)   Explain the procedures for document and records control

1.2   The Meeting/Workshop was held in accordance with Conclusion ECAR/DCA 26 /07 - *E/CAR AIM implementation meeting paragraph b) inform the E/CAR States on the results of this task and the subsequent assistance actions taken to the E/CAR/DCA/27 Meeting* and with ICAO Annex 15 — *Aeronautical Information Services* that urge States to implement a QMS at each functional stage performed by the AIS and/or AIM. Furthermore, in Annex 15 it is recommended that the QMS be in conformity with the ISO 9001 series of quality assurance standards, and that it be certified by an approved organization.

1.3   This project proposal outlined the implementation of a QMS within the AIM by the E/CAR States. The objective of the project is to comply with the ICAO provisions and agree on the Letters of Agreements (LoAs). The Meeting reviewed the initial proposed amendments to the existing LoAs with Trinidad and Tobago which will reflect the inclusion of QMS. It was indicated by Trinidad and Tobago, that an implementation plan and schedule would be developed and disseminated to all States concerned.

1.4   The Meeting discussed the project for the transition from AIS to AIM considering all AIM activities performed by the functional groups (NOTAM, Filed Flight Plan (FPL), Pre-flight Information Bulletin (PIB), Integrated Aeronautical Information Package (IAIP), etc.) in all E/CAR States that contribute to the AIM-IAIP, the finalization of Phase 1 of the ICAO Roadmap for the transition to AIM, and other important steps from Phases 2 and 3. All presentations are posted on the following website: http://www.icao.int/NACC/Documents/Meetings/2016/ATS

1.5   The Meeting/Workshop opening ceremony commenced with remarks from Mr. Ian Michaels, Chief Air Traffic Services, who welcomed the delegates to Antigua and Barbuda and to the meeting. Ms. Shirley Ford, Rapporteur of the ECAR/CATG AIM Committee and chief Aeronautical Information Services Officer of Barbados, thanked Antigua for hosting this important Meeting/Workshop, while remarking on the process that has been made in the last 5-10 years as it relates to the development of Aeronautical Information in the E/CAR area. She informed that this was intended to be an interactive Meeting/Workshop and asked full participation. The Meeting was declared open by Mr. Edison Joseph; Permanent Secretary, Ministry of Public Utilities, Civil Aviation and Transportation, Antigua and Barbuda upon conclusion of his remarks, during which he urged delegates to make the time to enjoy some of the amenities available on the island. Mrs. Luana Isaac performed the duties of Master of Ceremony during the opening ceremony.

2.   Conduction of the Workshop

2.1   The workshop was conducted in 5 sessions, as proposed during the introduction. Following the Opening Ceremony, the group posed for a photo with Mr. Edson Joseph, Permanent Secretary, Ministry of Public Utilities, Civil Aviation and Transportation of Antigua and Barbuda.

2.2   The first day was dedicated to flight planning and operational issues to be presented by Mr. Ricky Bissessar from Trinidad and Tobago.

2.3   Additionally, it was emphasized that the implementation and operation of an Integrated AIM-QMS for E/CAR States would bring improvements in quality, efficiency and reliability with subsequent enhancements to productivity, safety and AIM service levels. As the QMS develops, the procedures need to be issued/applied and the system must be implemented in such a manner that the processes can be tested and checked for correct functioning. Specific discrepancies will be dealt with corrective actions and follow-up procedures under ISO-9001 requirements.

2.4   Trinidad and Tobago will be monitoring the progress for a period of time to determine which States have effectively implemented the QMS in terms of meeting the minimum requirements and providing evidence of such via records submitted from June 2016. This provides an opportunity for States to undertake any necessary corrective action prior to the conduct of audits in September 2016.

2.5   During the Meeting, the importance of the contribution of AIM/COCESNA in this process, providing assistance and documentation as reference for the different stages of the implementation, was recognized.

3.   E/CAR Single AIM-QMS issues

3.1   The E/CAR States Points of Contact (PoCs) to be collected were proposed to create an implementation team to facilitate more effective communication between Trinidad and Tobago and States, and also to establish responsibilities and accountabilities. The initial list of PoCs is presented in **Attachment B**.

3.2   Some deliverables were presented for the project objective in order to establish a QMS that meets selected requirements of the ISO 9001 standard. The following are considered to be essential elements for this process:

- Documented procedures (NCPA and Document and Record Control)
- Quality records

3.3   The Meeting was also requested to review and comment on the proposal relating to the QMS addition to the LOAs.

3.4   Some suggestions and minor modifications were proposed to the draft version of the LoAs presented.

3.5   Mr. Bissessar informed the participants that he was the PIARCO Flight Information Region (FIR) representative on the ICAO Flight Plan Monitoring Group, the alternate being Ms. Lorraine Davis of Antigua and Barbuda. The FPL Monitoring Group was created in May 2014 as an Ad hoc Group of the Air Traffic Services Inter-facility Data Communication (AIDC) Task Force, to help achieving the mitigation of FPL errors. Since the inception of the group, there have been two data collection exercises. The first exercise occurred between 21 July to 28 August 2014, after which the data was analysed and action items for resolving/mitigating errors were suggested and implemented.

3.6   A second data collection exercise was conducted during the period of 16 March to 10 April 10 2015. This data was analysed again and recommendations were made and implemented.

3.7   Some of the more frequent errors are identified below:

Flight Plan Errors:

1.   Use of Aeronautical Fixed Telecommunication Network (AFTN) addresses that do not exist.
2.   Improper Addressing of FPLs outside of PIARCO FIR.
3.   Incorrect Fields 10 (a) and 10 (b).
4.   Incorrect Routing.
5.   Inclusion of Boundary reporting points on all adjacent FIRs.
6.   New boundary points on the 18N line.
7.   Missing NAVAID identifiers.
8.   Issue of Alternate Aerodrome

3.8   Mr. Bissessar also spoke of the planned introduction of the Centralized Flight Plan System (CFPS) in the PIARCO FIR as a means of reducing flight plan errors. The system will utilize a single address for flights coming into or leaving the PIARCO FIR. E/CAR States will receive detailed documentation on the implementation and function of the CFPS well in advance of the start of this system. Finally, participants were made aware of the decision to continue with periodic FPL data collection in order to assess any progress made.

3.9   Other operational issues pertaining to NOTAM, proper use of the E/CAR AFS Network, AIM Projects, uses of aeronautical information and AIS staffing in the E/CAR, among other topics were discussed.

3.10   The Meeting was also requested to review and comment on the proposal related to the QMS addition into the LoAs.

4.   Conclusion

4.1   Based on the presentations and discussion, the participants agreed on the following conclusions:

4.2   The Meeting presented the project proposal on a single AIM QMS that could be used as basis to guarantee approval of the QMS implementation project in the E/CAR States. It also can be used as a framework for the development of the QMS in terms of defining scope, assessing the potential benefits, outlining the project, determining the roles and responsibilities of those States involved in the implementation of the QMS in the E/CAR area, specifying deliverables, target dates and resources needed for each E/CAR State, taking into consideration the deployment and testing phase of the QMS and the final adjustments and audit for the ISO certification phase.

4.3   Trinidad and Tobago presented the following Meeting structure to participants:

- Introduction
- Objective and Scope
- Benefits
- Programme description
    - Planning/Design of the QMS
    - Deployment and testing of the QMS
    - Final adjustment and internal and external audit
- Project plan and Project team
- Resources
- Deliverables

4.4   Jamaica expressed its gratitude to the authorities of Antigua and Barbuda for the warm welcome and hospitality received, and commented that it was a very productive Meeting/Workshop and a good example in order to initiate the AIM QMS implementation process in Jamaica.

4.5   In addition, the results and experience from this Single AIM-QMS Project for the E/CAR area could be applicable in similar ways to the Integrated Aeronautical Information Package (IAIP) produced by Curaçao, Dutch Caribbean Air Navigation Service Provider (DC-ANSP) to the Dutch Caribbean Territories (Bonaire, Saba, Sint Eustatius and Sint Maarten).

4.6   Finally, the Meeting/Workshop was informed that duplicated Filed flight plans (FPLs) were the most frequent error, and that the strategy of the ANI/WG FPL Monitoring group going forward will be to focus on one error at a time, starting with the duplication problem with the aim of significantly reducing these occurrences.

4.7   The Meeting acknowledged that generally, the AIS/AIM in the Eastern Caribbean is still underrated and underappreciated but most of all under resourced. Implementation of QMS is challenging and labour-intensive, in States where the functions of AIS are performed by Officers who also function as Air Traffic Controllers (ATC) and Meteorologists the task will be almost insurmountable.

5.   Recommendations from the AIM-QMS Meeting:

1)   Responsibility of the Directors General Civil Aviation (DGCAs)

Given that **all the Directors of the NACC Region** signed the *Port-of-Spain Declaration* for 100% implementation of phase one of the transition from AIS to AIM, **those Directors** that have not yet committed the resources necessary to achieve this goal were reminded by ICAO to do so at the Sixth Meeting of the North American, Central American and Caribbean Directors of Civil Aviation (NACC/DCA/06) held in Nassau, Bahamas, 10-12 May 2016.
In cases where the scope of responsibility of the DGCA does not include the provision of AIS, the DGCA is responsible for ensuring that the appropriate authority with this responsibility in each State or Territory provides the resources needed to meet the *Port-of-Spain Declaration* AIM target.

2)   Responsibility of the Air Navigation Service Provider

Management commitment to:

- provide the resources needed – human, financial, materials, work space (not in the control tower)
- seek separation of the functions of Air Traffic Control/Meteorology/Aeronautical Information
- ensure that there are enough (more than one) trained AIS/AIM Officers, appropriate to the level of activity in the State to meet the requirements of Aeronautical Information Management.

3)   Training

ICAO coordinates with the Aviation Training Centers in the Region the development of training programmes in:

- Quality Management Systems, specifically covering the following:
  - ISO 9001 2015 Standard
  - The application of the standard to aeronautical information
  - Auditing quality systems
- Advance training in aeronautical information that focuses on the elements of phases two and three of the transition from AIS to AIM

4)   Familiarization in the PIARCO AIM QMS Unit

That the Trinidad and Tobago Civil Aviation Authority be requested to facilitate any request for familiarization in the QMS Unit.

5)   That the appropriate authorities in each State or Territory sign the revised LoAs in accordance with the AIM QMS Implementation plan being developed by Trinidad and Tobago.

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LIST OF PARTICIPANTS

State	Participants Names
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Antigua and Barbuda	Ms. Lorraine Davis
Antigua and Barbuda	Ms. Luana Isaac
Antigua and Barbuda	Ms. Shenneth Phillips
Antigua and Barbuda	Ms. Denise Silston
Barbados	Ms. Donald Archer
Barbados	Ms. Shirley Ford
Barbados	Ms. Josline King
France	Ms. Catherine Mayaud
Grenada	Mr. Sheldon Thomas
Jamaica	Ms. Sharon Edwards Francis
Jamaica	Mr. Jeffery Gallow
Jamaica	Ms. Arvette Henry
Jamaica	Ms. Tameka Williams
Montserrat	Ms. Gerren Gerrald
Nevis	Mr. Gavron Woolward
Saint Kitts	Mr. Leon Phillip
Saint Vincent and the Grenadines	Mr. Billy Henry Jeffers
Trinidad and Tobago	Mr. Ricky Bissessar
Trinidad and Tobago	Ms. Sarah Samarooh
ICAO	Mr. Raul Martinez

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Appendix B

E/CAR STATES LIST OF POINT OF CONTACTS (POC)

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