



الهيئة العامة للطيران المدني

**ACAC AERONAUTICAL INFORMATION Management
(AIM) WORKSHOP
Arab Republic of Egypt - Cairo
National Air Navigation services Company (NANSC)
7-8th October 2009**

REPORT

GENERAL

1. The Arab Civil Aviation Commission (ACAC) on behalf of its member States organised in conjunction with EUROCONTROL an Aeronautical Information Management (AIM) Workshop, in Cairo – Egypt on 7-8th October 2009.

The workshop was kindly hosted by the National Air Navigation Services Company (NANSC) of Egypt whose generosity was highly appreciated. The workshop took the form of presentations followed by question and answers sessions. It was split into a single session related to the high level needs of AIM followed by technical briefings on individual components of AIM, and by presentations from four Arab States (Egypt – Saudi Arabia – Jordan – Tunisia) on their transition from AIS to AIM, and by a briefing from the International Federation of Aeronautical Management Associations (IFAIMA).

2. Delegates to the workshop were welcomed by General Emad Salam – Chairman of the Egyptian Civil Aviation Authority, by Mr. Mohamed Elkady – Air Navigation Expert in ACAC, and by Ms. Stefania Gazzina on behalf of the Director General EUROCONTROL. Ms. Gazzina also gave an introduction to and an overview of EUROCONTROL and introduced the moderator of the event.

- The Agenda is attached as Annex 1.
- A list of attendees is at Annex 2.

3. EUROCONTROL presenters were Ken Reid. Paul Bosman, Alexandre Petrovsky and Eduard Porosnicu.

AIM, A HIGH LEVEL PERSPECTIVE

4. Two presentations, “Evolution of AIM in Europe” and “From AIS to AIM – The ICAO Work Programme” were given.

5. Evolution of AIM in Europe The presentation outlined the significant challenges that Europe faced in providing airport and airspace capacity in the coming years. It outlined the European Community Single European Sky (SES) Regulations and the SES Air Traffic Management (ATM) Research and Development (SESAR) programme designed to meet the needs of the future ATM system.

The workshop noted the fundamental need for the provision of high quality geospatial and other aeronautical information to support the present and future needs of ATM. It was recognised that there some of the issues raised were potentially relatively simple to accommodate but others were highly technical and complex and would require expert support to address. The challenges of implementing AIM would require resources in addition to those currently available to the AIS of Arab States. The Workshop recommended that ACAC initiate a feasibility study into the challenges associated with the implementation of AIM by the Arab States.

Recommendation 1: *that ACAC initiate a feasibility study into the challenges associated with the implementation of AIM by the Arab States.*

From AIS to AIM – The ICAO Work Programme The presentation gave a comprehensive overview of the ICAO vision for a global AIS/AIM and work programme to support the transition from AIS to AIM. It introduced a three phased approach to change. **Phase 1** – Consolidation; **Phase 2** – Going Digital; **Phase 3** – Information Management. In the presentation the AIS/AIM Planning in the MID Region and associated tasks/work programme were highlighted. In particular, Draft Conclusion 5/11 of the MIDANPIRG AIS/MAP TF/5 meeting: “Hosting of the Global AIM Congress” was highlighted:

“That, considering that the Global AIM Congress has been hosted since 2006 by States from the EUR, APAC and AFI Regions:

- a) MID States are encouraged to host the Global AIM Congress in 2012; and*
- b) those MID States that are interested to host the Global AIM Congress in 2012, inform the ICAO MID Regional Office of their intention before **30 September 2009**, in order to carry out necessary coordination with EUROCONTROL and the Congress Consortium.”*

Recommendation 2. *That ICAO MID Regional Office, on behalf of the MID States, invite EUROCONTROL and the Global AIM Consortium to consider the hosting of the 2012 Global AIM Congress by the MID Region.*

PHASE 1 – CONSOLIDATION

6. AIS-AIM Roadmap and AIS-AIM Study Group. Paul Bosman [presenter read a bit funny], who had Chaired the first meeting of the AIS-AIM Study Group outlined the work of the Study Group and the progress made to date and gave greater detail to the Roadmap.

7. Roadmap Phase 1. The briefing on the ICAO Roadmap Phase 1 consisted of a multiple of short presentations including WGS-84, Quality Management System (QMS), AIRAC adherence and the use of the pTracker tool to audit delivery times amongst other topics. The Workshop noted the contents of the presentation in particular the

presentations on QMS and recalled the “*DRAFT CONCLUSION 5/2 of the MIDANPIRG AIS/MAP TF/5 meeting: AWARENESS CAMPAIGNS AND TRAINING PROGRAMMES ON QMS. That, MID States, with the support of ICAO and the QMS Implementation Action Group (QMS AG), organize, at the National level, awareness campaigns and training programmes to promote and expedite the process of implementation of QMS for AIS.*”

The Workshop supported this conclusion and recommended that ACAC should support the Arab States in the implementation of QMS for AIS/AIM.

Recommendation 2. *That ACAC support member States to conduct QMS awareness campaigns at the national level in order to expedite the implementation of QMS by each State.*

PHASE 2

8. **The European AIS Database (EAD) and the Aeronautical Information Conceptual Model (AICM).** An overview of the EAD and the essential nature of the AICM were given. The Workshop noted that the AICM was based on the Unified Modelling Language (UML), which is independent from the specific solutions used for data encoding and data exchange. This gives the means to accommodate and migrate to more advanced data encoding standards, as they became available.

The workshop noted the fundamental need for the provision of high quality data and that there was a growing trend for Arab States to adopt individual system solutions based on AIXM to meet their needs. The workshop recognised the benefits of a centralised approach such as that adopted in Europe with the EAD and concluded that such an approach based either on a central solution or on a more distributed means should be adopted by the Arab States. The workshop noted that ACAC was to host a workshop on Air Traffic Flow Management in Jordan the following week and that the EAD was to be presented. Jordan, Egypt and Syria reported that they were discussing connectivity to the EAD as reported to AISMAPTF/5 and in accordance with CONC. 11/49 of the 11th meeting of the MIDANPIRG : “EXTENSION OF THE EAD TO THE EMAC STATES - That, the EMAC States are encouraged to initiate formal coordination with EUROCONTROL and take appropriate actions in order to be connected to the European AIS Database (EAD). The Workshop recommended that ACAC should undertake a feasibility study into the means by which pan-Arab harmonised and integrated aeronautical data provision could be achieved.

Recommendation 3. *That ACAC should undertake a feasibility study into the means by which pan-Arab harmonised and integrated aeronautical data provision could be achieved using the experience of the EAD for guidance.*

9. **Electronic Terrain and Obstacle Data (eTOD).** A high level presentation on the European activities with regard to eTOD was given. The presentation outlined amongst other items the change proposals to Chapter 10 of Annex 15 (AIS) for all four Areas that had been submitted by Europe to ICAO and subsequently published in the draft Amendment 36 to Annex 15. In particular the presentation highlighted that subject to further validation, a reduction of approximately 90% in the costs of survey and data processing for Area 2 appeared feasible. The workshop noted that a Regional and airport-by-airport approach should be adopted and that support to individual States in the development and implementation of national policies was

required. The workshop supported the MIDANPIRG AIS/MAP TF/5 meeting Draft Conclusion 5/6, and agreed to the following Recommendation:

Recommendation 4. *That ACAC support member States to conduct eTOD awareness campaigns at the national level in order to expedite the implementation of eTOD by each State.*

10. **eAIP.** A brief on the eAIP was given highlighting the very real benefits to be obtained by States. The Workshop noted that the eAIP Specification is now being provided to the ICAO AIS-AIM Study Group and it is proposed to become Guidance Material in support of the Annex 15 recommendation (see ICAO State Letter for AMDT 36) for the provision of Electronic AIP. Some of the ACAC States (Egypt, Saudi Arabia, etc.) are already in development for the production of an eAIP according to the Eurocontrol Specification.

11. **AMMON.** The workshop noted the substantial benefits that were being delivered in Europe in terms of enhanced data quality by the EUROCONTROL AMMON data monitoring project. It was agreed that the adoption of a similar service by the Arab States would be greatly beneficial and recommended that ACAC should conduct a feasibility study into the means by which such a service could be established.

Recommendation 5. *That ACAC should conduct a feasibility study into the means by which a service similar to the European AMMON service could be established by the Arab States.*

12. **Airport Mapping.** An overview of the growing importance of the use of digital airport maps in systems such as the Electronic Flight Bag (EFB) and other onboard devices was given. The direct relationship with Geographic Information System (GIS) technology was noted as was the applicability to ground based systems including vehicle use.

PHASE 3

13. **AIXM and the Digital NOTAM.** A brief was given on AIXM and the Digital NOTAM. The latter is seen to be the key development to enable the creation of a truly temporal airspace situation picture for air and ground use. The link with updating Airport Maps was made. The presentation provoked much discussion and the workshop concluded that there was a need for the Arab States to develop a common, coordinated approach to facilitating understanding amongst member States at all levels and to the implementation of digital NOTAMs. The workshop recommended that ACAC will probably need to conduct in the coming years a feasibility study into the implementation of the Digital NOTAM by member States noting the parallel work currently being conducted by ACAC and EUROCONTROL within the context of the Central Arab Flow Management Unit.

Recommendation 6. *That ACAC member States maintain their awareness of the European and North American initiatives with regard to Digital NOTAM and are encouraged to participate in any trials.*

14. **CHAIN and Service Level Agreements (SLA).** The workshop noted that EUROCONTROL, through the Controlled and Harmonized Aeronautical Information

Network project "CHAIN", had supported the European States in meeting ICAO requirements related to QMS (awareness campaigns, development of guidelines and Service Level Agreements (SLA's), development of Computer Based Training "CBT", etc). A number of States outlined progress in the implementation of SLA's with one noting that achieving agreement was challenging but the end result was greatly beneficial.

15. **Human AIM.** EUROCONTROL outlined activities in the Human Factors domain of AIM. It noted that all material had been made available to the ICAO AISAIMSG and that an ad-hoc working group was formed to develop an AIS/AIM training Manual taking into account available material on AIS Training. There followed a discussion on licensing.

***Recommendation 7.** That member States take recognition of and contribute to the work of the ICAO AISAIMSG for the development of the AIM Training Manual.*

16. **ACAC STATES PRESENTATIONS.** Four States Egypt, Jordan, Saudi Arabia and Tunisia presented on the evolution of AIS/AIM. The first three centred on their strong progress to AIS automation and Tunisia on its QMS. The presentations were well received. There followed a presentation by the First Vice President of the International Federation of Aeronautical Information Management Associations (IFAIMA) on the aims of the Association. Since its formation in June 2008 the Association had been incorporated under Portuguese law, elected its officers and now number in excess of 600 members from more than 20 States.

17. **The road to Information Management.** The briefing concentrated on the growing importance of Information Management in the context of ATM. It provided a high level overview of the transition of AIM into System Wide Information Management (SWIM) and the role it would play in the future net-centric ATM operations.

CONCLUSION

18. The Workshop which gave a good overview of the ICAO AIS to AIM roadmap, was well received by the delegates and many thoughtful questions were posed and answered over the two days. What was clearly evident was the clear understanding of the Workshop of the challenges to be faced by ATM and a willingness to adapt to change. There was also a very strong sense of unity, a desire to continue to work closely together to face the challenges of change just as the ACAC States have done in the past. Nevertheless there was a general understanding that resources were scarce and that there needed to be a focal point, a catalyst to achieve change and as can be seen from the Recommendations, the Workshop clearly looked to ACAC to provide this.

Any additional information can be obtained from <http://www.icao.int/anb/AIM/SG> and <http://www.eurocontrol.aim>