

# A story of progress

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**ACAC AIM Workshop (Cairo 7-8 October 2009)**

## **We have started, when to finish?**

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# Objective of AIS

to ensure the flow of information necessary for the safety, regularity and efficiency of international air navigation.

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# AIS Role

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- The role and the importance of aeronautical information has changed significantly with the implementation of (RNAV), (RNP) and air born computer-based navigation system. Consequently the Corrupt or incorrect aeronautical information/data can potentially affect the safety of air navigation.
  - AIS plays a vital role in the CNS/ATM System, because trustful information , and resources are needed to develop and modify charts to be available at all times.
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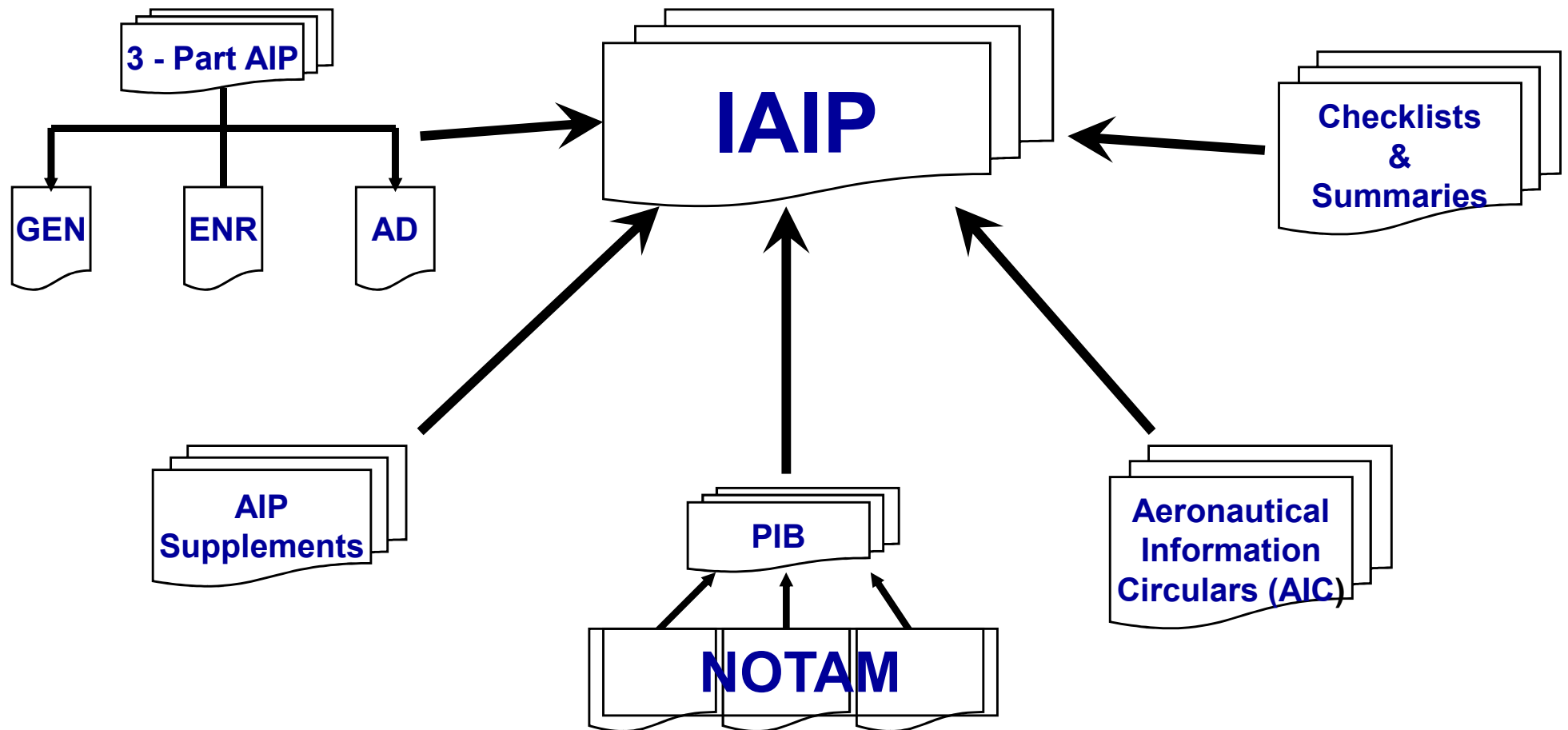
# AIS & ATM

The role of AIS is one of the foundations for a successful transition to a global Air Traffic Management (ATM) system.

At the core of this **a quality system** that will provide quality and timely information to the aviation community. The timeliness and integrity of quality aeronautical information/data is a significant step towards the globalization of ATM

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# ***AIS SERVICES***



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# Flight Planning

As well as in many MID states AIS in Jordan is responsible for handling all Flight Plans and relative ATS messages submitted by national and international airlines operating flights from and to Jordanian airports .

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# AIS Structure

- **AIS Headquarters**

AIS HQ is a part of the of Air Traffic Management Department within the Civil Aviation Regulatory Commission

- **International NOTAM Office (NOF)**

The NOF is a part of Air Navigation Services Department at Queen Alia aerodrome. It is integrated with the AIS unit and the ATS Reporting Office at AMMAN/Queen Alia International aerodrome and available for H24.

- **The AIS at Amman/Marka aerodrome.**

The AIS Unit and ATS Reporting office is a part of Air Navigation Services Department at Amman/Marka aerodrome. It is available for H24.

- **The AIS unit at Aqaba/ King Hussein aerodrome.**

The AIS unit and ATS Reporting Office is a part of the Air Navigation Services department at Aqaba / King Hussein International aerodrome. It is available for H24.

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# Data Coverage

Within Amman FIR, there are:

3 international civilian airports; 11 prohibited/danger areas; 6 Lower ATS routes; 4 Upper/ RNAV/ RNP5 ATS routes; 4 Radio Navigational aids to be used in ENR and 23 to be used at ADs ; and 25 significant points.

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# Responsibility

The AIS maintains and manages all related data within Amman FIR, and process it to information essential to flights, thus satisfying the needs of all users .

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# Who Are Our Users?

- Aircraft operators and pilots
  - Air traffic services.
  - AIS offices in other states.
  - Governmental & Military Agencies involved in Air-Space Usage.
  - Non-state information services( Jeppesen, etc)
  - Flight Management System Service Providers.
  - Aerodrome Operators, Land Developers & Local Government Planning Departments.
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# Function

The effective functioning of AIS is dependent upon the co-operative efforts of certain services, such as communications; airport authorities ; Air Traffic Services (ATS); Military, etc...

Since raw data must be originated by such services, AIS is continually looking for ways of improving the lines of communication and harmonies working relationship, by:

- Conducting regular meetings;
  - Awareness campaigns; and
  - SLA.
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# Difficulties

- Understanding of the real functions of AIS;
  - Understanding of the real need of delivery of accurate data;
  - Understanding of the real need of AIRAC adherence;
  - Understanding of the real need of receiving quality assured information;
  - Understanding for the important for transition to AIM;
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# Important changes affected Jordan AIS

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## *Integrated Aeronautical Information Package and the 3 - Part AIP*

- On 1996, AIP Jordan 3 parts mission accomplished .
  - AIP Jordan is prepared and produced manually and available in word and PDF .
  - AIP Jordan and other AIS Publications are posted on CARC website .
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## *WGS-84 Implementation*

To fulfil ICAO requirements , CARC in coordination with RJGC studied the needs to perform the possibility to achieve the required WGS-84 requirements.

Full survey conducted for the whole territory of the Hashemite kingdom of Jordan. The mission was accomplished in 1998 .

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# *AIS Automation*

- In 2003 CARC installed an AIS automated system.
  - The system automates the management of NOTAM, OPMET, and flight plan data. It also automates the production of Pre-flight Information Bulletins for pilots / dispatchers and any other user.
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# *Quality Management System*

- One of the major steps took by AIS Jordan is the implementation of QMS as per Annex 15 requirements .
  - Its is intended to obtain ISO(9001-2008) certificate on the first half of year 2010 .
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# Implementation of eTOD

- eTOD phase one will be implemented in Jordan in coordination with the RJGC.
  - phase one( Area 1 & 4) data is ready and under finalization .
  - Area 4 implementation faced few technical problems.
  - Cost recovery issues, didn't recognized yet.
  - Finding users for the data.
  - More awareness for middle management, regulators, and data owners .
  - Clearer guidance material is in need for technical implementations.
  - Training workshops are required for data users.
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**What is the next important step**

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# Transition From Traditional AIS to AIM

## Discussion

- Within ATM/CNS, the concept of AIM broadens the current scope of Aeronautical Information. It ensures Aeronautical Information quality, integrity and timeliness through the use of fully digital interoperable systems and enables dynamic context based retrieval/delivery of Aeronautical Information.
  - AIM is not a physical System. It does not imply the implementation of a centralized database but is a "system of systems", based upon the networking of various database components through a middleware concept architecture.
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# Steps Toward Transitions

- Awareness campaign conducted for service providers /and user to explain the concept and requirements for the transition;
  - The European strategy From AIS to AIM made available for all concerned;
  - CARC participated in many regional and global meetings related to the transition ;
  - CARC AIS participated in the x NOTAM Trial From 6/10/2008 – 28/10/2008;
  - ICAO Document Roadmap for the transition from AIS to AIM adopted; and
  - Taking into account ICAO policies and guidelines , Jordan CARC took the decision to migrate with EAD, since EAD is an existing example for AIM .
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EAD

VALIDATED DATA FOR SAFER FLYING



# EAD and AIM

# Merging With EAD



CARC took the decision to become Operational in all EAD operational areas both as :

- Data user ; and
- Data provider

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# CARC decided to plan the migration to in 3 phases

- Phase one: implementation of the EAD integrate IAS office solution by maintaining INO, SDO and PAMS information and disseminating relevant data via the EADPRO;
  - Phase two: implementation of the BF at the different ATS reporting offices;
  - Phase three: Implementation of the eAIP and e-Chart production at AIS HQ .
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# What Will EAD Deliver ?

- By having access to the EAD through the different applications, CARC AIS will have a fully automated system covering all those applications to move towards AIM.
  - The system agreed on will evolve with the ICAO changes in (Amendment 34, amendment 35 and 36), it will evolve to AIXM 5 and Digital NOTAM.
  - EAD BF services will fully comply with new requirements as per Amendment 1 of ICAO DOC4444, taking into account that those amendments will start from 2012.
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# We Should Recognize That :

The EAD is not only a system and applications; there is a full service behind. It will allow us to:

- Deliver our AIS services;
  - Move with time with other European States to AIM;
  - Get the worldwide NOTAM processed;
  - Get access to all ECAC AIPs electronically; and to other worldwide static data.
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# Are We There ?

NO

Many things also should be taken into  
consideration

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**CARC should discuss requirements and best solutions for the transition, and address the following main points:**

- **People involved in the transition;**
  - **Roles and responsibilities;**
  - **secure funding ;**
  - **New staff requirements ( recruitment);**
  - **New Regulations within the authority based on New SARPS;**
  - **Copyright and intellectual property ; and**
  - **New charging principles for cost recovery**
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# Conclusion

From MID state point of view, and work undertaken so far in Jordan, it is clear that more aspects need further work to provide the clarity essential to support the transition from AIS to AIM .

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# Finally

How can we tell that we are there  
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**Thank you for your attention**

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