



International Civil Aviation Organization

**The Tenth Meeting of the Asia/Pacific Aeronautical Information Services –  
Aeronautical Information Management Implementation Task Force  
(AAITF/10)**

Bangkok, Thailand, 27-30 April 2015

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**Agenda Item 4: AIS-AIM Updates**

**INTERIM AIM TRANSITION GUIDANCE**

(Presented by the Secretariat)

**SUMMARY**

This paper presents draft AIM Transition Guidance for consideration by AAITF, to provide interim guidance on implementation of key AIM transition steps pending the availability of ICAO global guidance material.

**1. INTRODUCTION**

1.1 AAITF/9 noted that the lack of AIM transition guidance material was causing significant concern.

1.2 While recognizing that any independently developed regional guidance material could risk encouraging States to implement AIM in ways that were either not supported by or running counter to the delayed global guidance material, AAITF agreed to continue to work on guidance material for priority AIM transition steps.

**2. DISCUSSION**

Heading

2.1 The following guidance material supporting the ICAO Roadmap for Transition from AIS to AIM is being developed by the ICAO AIS-AIM Study Group (AIS-AIM/SG):

- Doc 8126 – *AIS Manual* (update);
- Doc 9839 – *Quality Manual* (new);
- Doc 9919 – *AIM Training Development Manual* (new);
- Doc 9881 – *eTOD/AMDB Manual* (final validation and editing);
- Doc 9674 – *WGS-84 Manual* (update - accuracy & heighting);
- Doc 8697 – *Charting Manual* (update);
- Doc 9855 – *Guidelines on the use of the Public Internet for Aeronautical Applications* (update);
- Doc 8400 – ICAO Abbreviations and Codes (PANS-ABC – update) and
- AIM Concept (new);

2.2 Delivery of the above documents has been further delayed. The latest information from ICAO Headquarters is that most of these documents are undergoing final drafting and/or editing, but publication dates have not yet been finalized.

2.3 Other documents under development were the updated Annex 15 – *Aeronautical Information Services*, and the new *Procedures for Air Navigation Services – Aeronautical Information Management* (PANS-AIM).

2.4 The lack of global guidance material is a significant obstacle in States' AIM implementation progress, and presents challenges to their efforts to implement AIM transition steps within timeframes defined by Annex 15 applicability and the Asia/Pacific Seamless ATM Plan performance objectives. AAITF consequently agreed to work on AIM transition guidance material for 4 identified priority AIM transition steps: P-17 – *Quality*, P-16 – *Training*, P18 – *Agreements with data originators*, and P-11 *Electronic AIP*.

2.5 **Attachment A** provides a draft of the Interim AIM Transition Guidance, intended to provide States with a simple checklist of references and information, pending the publication of the ICAO global guidance material and PANS-AIM. It is proposed that the Interim AIM Transition Guidance forms an Appendix to the *Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region*, which is currently available on the ICAO Asia/Pacific Regional Office Website at <http://www.icao.int/APAC/Pages/edocs.aspx>.

2.6 The meeting is invited to add, amend or delete information from the guidance material and, following its review, agree to the following Draft Conclusion:

**Draft Conclusion AAITF/10-1: Interim AIM Transition Guidance**

That, the *Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region* be updated to include as an appendix the Interim AIM Transition Guidance appended at **Attachment A**.

2.7 Following their availability there will be a need to familiarize stakeholders with the contents of the new and updated ICAO publications supporting AIM transition. Recognizing also the performance objectives of the Asia/Pacific Seamless ATM Plan (AIM Transition Phases 1 and 2 implemented by November 2015), there will be a need for further development of Regional guidance. The meeting is invited to agree to the following Draft Decision:

**Draft Decision AAITF/10-2: AIM Transition Seminars/Workshops**

That, ICAO be urged to facilitate Asia/Pacific AIM Transition Seminars/Workshops to:

1. Familiarize stakeholders with the new and amended ICAO publications developed by the ICAO AIS-AIM Study Group;
2. Assist States in developing AIM implementation plans; and
3. Act as a forum for further development and updating of the *Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region*.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) review and amend where necessary the Interim AIM Transition Guidance provided in **Attachment A**;
- c) Agree to the proposed Draft Conclusion and Draft Decision; and
- d) discuss any relevant matters as appropriate.

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## INTERIM AIM TRANSITION GUIDANCE

### Introduction

1.1 The Ninth Meeting of the Asia/Pacific Region AIS – AIM Implementation Task Force (AAITF/9, Pattaya, Thailand, 24 – 27 June 2014), recognized that the lack of AIM transition guidance material was a matter of significant concern to Administrations. There had been delays in the production of global ICAO guidance documents, those of most immediate significance being the updated Doc 8126 *AIS Manual*, the new Doc 9839 *Quality Manual* and Doc 9991 *AIS Training Manual*.

1.2 The lack of global guidance material was proving to be a significant obstacle in States' AIM implementation progress. This would present considerable challenges to their efforts to implement AIM transition steps within timeframes defined by the applicability of Standards and Recommended Practices (SARPS) defined in Annex 15 to the Convention on Civil Aviation, and the performance objectives of the Asia/Pacific Seamless ATM Plan.

1.3 AAITF/9 noted that any independently developed regional guidance material could risk encouraging States to implement AIM in ways that may be divergent from anticipated global guidance. However, also noting that availability of global guidance material had been progressively delayed from Q1/2 2012 to Q3/4 2013 then Q2/3 2014, the Task Force agreed to continue work on Regional AIM transition guidance material for key AIM transition steps from the ICAO *Roadmap for Transition from AIS to AIM*.

1.4 4 priority AIM transition steps were identified:

- P-17 – *Quality*;
- P-16 – *Training*;
- P-18 – *Agreements with data originators*;
- P-11 – *Electronic AIP*.

1.5 The following guidance material is provided in the form of a checklist of considerations, together with brief explanatory material, for each of the four identified steps. References to SARPS and existing guidance material are provided. Contributions provided by Australia, India, Japan, Malaysia, Singapore and Thailand were reviewed and agreed by AAITF/10 (Bangkok, Thailand, 27 – 30 April 2015).

1.6 Global AIM guidance documents, when published, will be reviewed by AAITF. The outcomes of that review will determine the need for continuing regional guidance material.

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## **P-17 – Quality**

### Roadmap for Transition from AIS to AIM

*Quality management measures will be re-enforced to ensure the required level of quality of the aeronautical information. In order to assist States in the implementation of an efficient quality management system, guidance material for the development of a quality manual will be developed.*

The transition step P-17 – Quality is one of four steps in AIM Transition Phase 1 – *Consolidation*. In this phase States were expected to enhance the quality of their existing AIS products, to conform to SARPS existing at the time of publication of the Roadmap.

Along with the other Phase 1 transition steps, P-17 – Quality is a prerequisite for commencement of the transition from AIS to AIM.

### Annex 15 – Aeronautical Information Services

1.1 Amendment 30 to Annex 15, applicable from 2 November 2000, introduced the following Standard:

#### *3.2 Quality system*

*3.2.1 Each Contracting State shall take all necessary measures to introduce a properly organized quality system containing procedures, processes and resources necessary to implement quality management at each function stage as outlined in 3.1.7 above. The execution of such quality management shall be made demonstrable for each function stage, when required.*

1.2 The wording of the paragraph was subsequently simplified in Amendment 36 to the Annex, applicable from 18 November 2010:

#### *3.2 Quality management system*

*3.2.1 Quality management systems shall be implemented and maintained encompassing all functions of an aeronautical information service, as outlined in 3.1.7. The execution of such quality management systems shall be made demonstrable for each function stage, when required.*

1.3 The following Annex 15 references specify addition SARPS for aeronautical information quality, and quality management systems:

#### **1.1 Definitions**

***Aeronautical information management (AIM).*** *The dynamic, integrated management of aeronautical information through the provision and exchange of quality-assured digital aeronautical data in collaboration with all parties.*

**Data quality.** A degree or level of confidence that the data provided meet the requirements of the data user in terms of accuracy, resolution and integrity.

**Metadata.** Data about data (ISO 19115\*).

*Note.*— A structured description of the content, quality, condition or other characteristics of data.

**Quality.** Degree to which a set of inherent characteristics fulfils requirements (ISO 9000\*).

*Note 1.*— The term “quality” can be used with adjectives such as poor, good or excellent.

*Note 2.*— “Inherent”, as opposed to “assigned”, means existing in something, especially as a permanent characteristic.

**Quality assurance.** Part of quality management focused on providing confidence that quality requirements will be fulfilled (ISO 9000\*).

**Quality control.** Part of quality management focused on fulfilling quality requirements (ISO 9000\*).

**Quality management.** Coordinated activities to direct and control an organization with regard to quality (ISO 9000\*).

**Requirement.** Need or expectation that is stated, generally implied or obligatory (ISO 9000\*).

*Note 2.*— A qualifier can be used to denote a specific type of requirement, e.g. product requirement, quality management requirement, customer requirement.

**Traceability.** Ability to trace the history, application or location of that which is under consideration (ISO 9000\*).

*Note.*— When considering product, traceability can relate to:

- the origin of materials and parts;
- the processing history; and
- the distribution and location of the product after delivery.

**Validation.** Confirmation, through the provision of objective evidence, that the requirements for a specific intended use or application have been fulfilled (ISO 9000\*).

**Verification.** Confirmation, through the provision of objective evidence, that specified requirements have been fulfilled (ISO 9000\*).

*Note 1.*— The term “verified” is used to designate the corresponding status.

*Note 2.*— Confirmation can comprise activities such as:

- performing alternative calculations;
- comparing a new design specification with a similar proven design specification;
- undertaking tests and demonstrations; and
- reviewing documents prior to issue.

## **Chapter 2.** Responsibilities and Functions.

### **2.1** State responsibilities

2.1.4 Each Contracting State shall ensure that the aeronautical data and aeronautical information provided are complete, timely and of required quality in accordance with 3.3.

**Chapter 3. Aeronautical Information Management**

- **3.2** Aeronautical data and aeronautical information validation and verification
- **3.3** Data quality specifications  
(Accuracy, Resolution, Integrity)
- **3.4** Metadata
- **3.5** Data Protection
- **3.6** Use of Automation
- **3.7** Quality management system
- **3.8** Human Factors Considerations

**Chapter 8. Pre-Flight and Post-Flight Information**

- **8.2** Automated pre-flight information systems

**Chapter 10. Electronic Terrain and Obstacle Data**

- **10.4** Terrain and obstacle data product specifications

**Chapter 11. Aerodrome Mapping Data**

- **11.1** Aerodrome mapping data – requirements for provision

**Appendix 7. Aeronautical Data Publication Resolution and Integrity Classification**

Annex 4 – Aeronautical Charts

**Chapter 5. Aerodrome Terrain and Obstacle Chart – ICAO (Electronic)**

**5.8** Chart data product specifications

**Chapter 20. Electronic Aeronautical Chart Display – ICAO**

**20.4.** Provision and updating of data

**Appendix 6. Aeronautical Data Quality Requirements**

ICAO Doc 8126 – AIS Manual

1.4 Guidance material for Quality Systems is included in the current edition of ICAO Doc 8126 – *AIS Manual* (Eighth Edition, published in 2003 and last amended in September 2009).

**Chapter 1. Introduction**

- **1.3** Quality System
- **1.6** Use of Automation

**Chapter 9. Organization of an Automated Aeronautical Information Services System**

- **9.2** Basic Principles
- **9.3** Users' Operational Requirements in an Automated AIS System
- **9.6** Harmonization of AIS and MET Information

ICAO Doc 9674 – WGS-84 Manual

1.5 In addition to quality requirements for accuracy, resolution and integrity, the WGS-84 Manual provides detailed guidance for quality assurance of aeronautical data:

**Chapter 6. Quality Assurance**

Regional Guidance Material

1.6 Detailed Regional guidance material for Quality Systems is included in the *Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region*, and available on the ICAO Asia/Pacific Regional Office website at <http://www.icao.int/APAC/Pages/edocs.aspx>.

Checklist of Considerations

Regulatory Considerations

1.7 **Regulations supporting aeronautical information quality must be established:**

Requirements for aeronautical information quality, and for formal agreements defining roles and responsibilities of data originators, AIS, aeronautical information production organizations (e.g. charting) and end users.

1.8 **Examples of Regulations for Aeronautical Information may be found at:**

[States to specify hyperlinks to regulations, e.g.....]

Civil Aviation Safety Authority (Australia)

<http://www.casa.gov.au/scripts/nc.dll?WCMS:PWA::pc=PARTS175>.

Resources, Infrastructure and Systems

1.9 **Provision of resources**

Appropriate deployment of resources to ensure that the AIM management system is capable of meeting ongoing business needs. Sufficient resources are allocated toward maintaining and improving the quality management system, and enhancing customer/client satisfaction.

- an assessment of the training needs of staff
- provision of training and the maintenance of currency/effectiveness
- the appropriate number of persons
- availability of equipment and systems
- staff facilities and reference materials.



1.10      **Infrastructure**

Appropriate infrastructure such as buildings, equipment and systems (hardware and software) are provided to enable personnel to deliver quality products and services commensurate with their role and responsibilities. The plant and equipment used is supported by service contracts administered by dedicated support groups. System specialists maintain configuration, access, security, virus control and disaster recovery of computer based systems.

Processes and Procedures

1.11      **Develop an Aeronautical Information Quality Manual**

Guidance on the development of a Quality System for Aeronautical Information, and a sample Quality Manual, are provided in the *Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region*. Detailed global guidance for quality management will be provided in the new ICAO Document 9839 – *Aeronautical Information Quality Manual*.

1.12      **Documented Procedures.**

Documented procedures ensure that controlled documents are identifiable, legible, readily available and retrievable. Documents are regularly reviewed for adequacy and approved by the relevant document owner.

Ensure that:

- relevant and current documents are issued and are available at points of use ;
- unauthorised or obsolete documents are removed from points of use;
- hard copies of controlled documents are assumed to be (and are treated as) ‘Uncontrolled Copy’; and
- changes to documents are reviewed and approved and identified in the document.

1.13      **Control of records**

AIM should have legal and regulatory requirements to keep complete, reliable and accurate records as evidence that it is operating within regulatory and legislative requirements.

Policy should ensure that detailed records associated with any change to published information are maintained and are traceable back to the originator of the change.

1.14 **Regular reviews of the entire Integrated Aeronautical Information Package**

Regular reviews of all elements of the Integrated Aeronautical Information Package should be undertaken to ensure the consistency, accuracy and timeliness of information, and the timely removal of redundant information.

*The Integrated Aeronautical Information Package is defined in Annex 15 as a package in paper, or electronic media which consists of the following elements:*

- *AIP, including amendment service;*
- *Supplements to the AIP;*
- *NOTAM and PIB;*
- *AIC; and*
- *checklists and lists of valid NOTAM.*

1.15 **The AIP document set is reviewed and updated at regular intervals (at least once per year, in accordance with AIRAC cycle)**

1.16 **Ensure compliance with AIRAC publication and effective dates, and with advance notification requirements specified in Annex 15.**

Ensure data originators for planning purpose to ensure timely publication of operationally significant aeronautical data and information to allow sufficient time for follow-up actions by users.

Publish AIRAC publication and effective dates in AIC and / or AIP yearly

1.17 **Data Quality (Accuracy, Resolution and Integrity):**

Formal agreements must be in place between data originators, the AIS, data production organizations (e.g. charting) and end users, relating to the quality requirements, maintenance and amendment of data, and the procedures for coordination and communication.

Before submitting data for publication, data originators must ensure that data is accurate and is in conformity with the specifications.

AIS Section to ensure that the data has been entered into the system, for publication, as received.

Data originators to ensure that data is in conformity with the data forwarded.

Data originators should cross check the published data at each AIRAC date to ensure it remains valid.

Data originators to take immediate action to notify the AIS of any correction to data provided.

Data originators and AIS to assess the causes of error committed may be inadvertently and to take preventive measures.

**1.18 Proof reading and peer review of AIP amendments, AIP Supplements and AIC before publication.**

Check for typographical and other errors, and for inconsistency between elements of the Integrated Aeronautical Information Package.

Review by data originators and aeronautical information service providers.

**1.19 AIP Amendment Distribution Checks.**

Conduct surveys and other checks to ensure that end users of AIP are receiving AIP Amendments, SUPPS and AIC in accordance with the AIRAC and Annex 15 requirements for distribution.

**1.20 Annex 15 and Doc 8126 Compliance checks for all NOTAMS.**

Standards, recommended practices and guidance for the compilation and distribution of NOTAMS are defined in Annex 15 and Doc 8126 AIS Manual.

Asia/Pacific Region OPADD procedures should be used to complement the procedures specified in ICAO docs to ensure concise, consistent NOTAMS.

**1.21 Corrective Action on Errors Identified after Publication.**

- Verify the nature of the error;
- Where necessary verify the correct information with the data originator;
- Take initial NOTAM action where appropriate, and initiate amendment to AIP and/or re-issue of AIP Supplement or AIC.

**1.22 Handling of multi-part NOTAMs**

Standardized format to indicate multi-part NOTAMs, to allow automatic processing

**1.23 Standard format for NOTAM query (RQN)**

Standardized format to request repeat of missing / corrupted to allow automatic processing by automated system to provide accurate and complete aeronautical information to users.

1.24 **Single, published address and contact information for NOF**

To ensure that queries and corrections on NOTAMs are correctly routed for timely follow-up action.

Human Performance

1.26 **Ensure complete understanding of Aeronautical Information Management concepts including:**

- *National obligations under Annexes 4 and 15 to the Convention on Civil Aviation.*
- *National regulations supporting annexes 4 and 15*
- *AIRAC cycle and Annex 15 requirements for advance notification of major changes.*
- *Definition of major changes.*
- *Quality requirements for accuracy, resolution and integrity*

1.27 **Regular Proficiency Checks**

Ensure all staff in the aeronautical information chain are suitably trained, competent and diligent, and are familiar with any changes in processes or requirements.

Annex 1 to the Convention on Civil Aviation (Personnel Licensing) does not specify license requirements for Aeronautical Information Personnel. States may consider implementing a Certificate of Competency, together with a performance standards and assessment methodology, for the regular assessment of competency.

1.28 **Xxx**

Xxxxx

## **P-18 – AGREEMENTS WITH DATA ORIGINATORS**

### Roadmap for Transition from AIS to AIM

*Data of high quality can only be maintained if the source material is of good quality. States will be required to better control relationships along the whole data chain from the producer to the distributor. This may take the form of template service level agreements with data originators, neighbouring States, information service providers or others.*

The transition step P-18 – *Agreements with Data Originators* is one of eight steps in AIM Transition Phase 3 – *Information Management*. While the Asia/Pacific Region’s current focus is on implementation of Phases 1 and 2, it is recognized that formal agreements between stakeholders in the aeronautical information chain are a critical component of robust end-to-end quality management. Step P-18 is one of four complementary Roadmap steps related to the quality management of aeronautical data:

- P-17 – Quality;
- P-01 – Data Quality Monitoring;
- P-02 – Data Integrity Monitoring; and
- P-18 – Agreements with Data Originators.

### Annex 15 – Aeronautical Information Services

1.1 The current provision in Annex 15 relating to agreements with data originators include:

#### *3.7. Quality management system*

*3.7.1 Quality management systems shall be implemented and maintained encompassing all functions of an aeronautical information service, as outlined in (section) 2.2. The execution of such quality management systems shall be made demonstrable for each function stage.*

*Note.—Guidance material is contained in the Manual on the Quality Management System for Aeronautical Information Services (Doc 9839).*

*3.7.2 Recommendation.— Quality management should be applicable to the whole aeronautical information data chain from data origination to distribution to the next intended user, taking into consideration the intended use of data.*

*Note 1.— Quality management may be provided by a single quality management system or serial quality management systems.*

*Note 2.— Letters of agreement concerning data quality between originator and distributor and between distributor and next intended user may be used to manage the aeronautical information data chain.*

- 1.2 The updated Annex 15, and new PANS-AIM currently being drafted by the ICAO AIS-AIM Study Group (AIS-AIM/SG) are expected to provide SARPS and/or procedures supporting agreements with data originators.

Checklist of Considerations

Regulatory Considerations

1.3 **Regulations for Data Quality and Timeliness**

States must Establish regulations detailing requirements and responsibilities for all data originators for the quality and timeliness of the provision of data, and the maintenance of data, and to ensure data quality as specified in Annex 15;

Owner of the facility to have agreement with the surveyor regarding conformance of required standards and practices.

1.4 **Regulations for Formal Agreements**

States should establish regulations requiring formal agreements for the exchange of aeronautical data between data originators, AIS, aeronautical data service providers and end users.

Resources, Infrastructure and Systems

1.5 **Xxx**

1.6 **Xxx**

Process and Procedures

1.7 **Identify a complete list of authorized originators of AIS Information (static and dynamic).**

A list of authorized data originators will clearly identify the organizations and stakeholders responsible for supplying specific information to the AIS organization, and avoid duplication or conflicting information from multiple origination points supplying the same information.

- Airport Operators;
- Military Organizations;
- Air Navigation Service Providers;
- Surveyors; etc.

1.8 **Specify the format for data to be provided by data originators.**

Ensure standardization of the format and presentation of data provided. Templates or proformas could be used to ensure standardized presentation of data by originators, and to ensure data complies with Annex 15 quality requirements for accuracy, resolution and integrity.

1.9 **Surveyed Geospatial Data.**

Agreements should clearly specify the responsibility of all parties to the agreement regarding ownership, maintenance and update of the data.

Facility owners such as airport operators should have formal agreements with surveyor organizations to ensure the data conforms with the required standards and practices.

1.10 **Formal Agreements**

Agreements may be in the form of a Contract, a Service Level Agreement (SLA), Memorandum of Understanding (MOU) or Letter of Agreement (LOA).

Formal agreements should include:

- Applicable national regulatory requirements;
- The scope of the data to be provided;
- Data Quality and Quality Management requirements;
- Data maintenance requirements;
- Method and format of provision of data, including the information exchange model;
- Clear requirements for originators to comply with Annex 15 requirements for advance notification of new or amended data;
- Accountabilities and responsibilities of data originators and AIS;
- Error reporting and rectification procedures;

Human Performance

1.11 **Conduct regular workshops and training courses for data originators.**

Ensure complete understanding of Aeronautical Information Management concepts including:

- National obligations under the Annexes to the Convention on Civil Aviation;
- National regulations supporting the Annexes;

- AIRAC cycle and Annex 15 requirements for advance notification of major changes;
- Definition of major changes; and
- Quality requirements for accuracy, resolution and integrity

1.12

**Xxx**

Xxxxx

DRAFT



## **P-16 – Training**

*The training of personnel will be adapted to the new requirements on skill and competencies introduced by the transition to AIM.*

The AIM Transition Step P-16 – *Training* is included in Phase 3 of the Roadmap for Transition from AIS to AIM. While current Asia/Pacific Regional focus is on Transition Phases 1 and 2, the Task Force has identified the need for AIS/AIM Training.

The new ICAO Doc 9919 – *AIM Training Development Manual*, currently undergoing pre-publication editorial review, will provide detailed guidance on training for personnel in the aeronautical information data chain.

Regional guidance for AIS training is included in the *Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region*

### Annex 15 – Aeronautical Information Services

#### 1.1 Annex 15 States:

*3.7.4 Within the context of the established quality management system, the competencies and the associated knowledge, skills and abilities required for each function shall be identified, and personnel assigned to perform those functions shall be appropriately trained. Processes shall be in place to ensure that personnel possess the competencies required to perform specific assigned functions. Appropriate records shall be maintained so that the qualifications of personnel can be confirmed. Initial and periodic assessments shall be established that require personnel to demonstrate the required competencies. Periodic assessments of personnel shall be used as a means to detect and correct shortfalls.*

#### Regional Guidance Material

1.2 The Guidance Manual for Aeronautical Information Services (AIS) in the Asia/Pacific Region is available on the ICAO Asia/Pacific Regional Office website at:

<http://www.icao.int/APAC/Pages/edocs.aspx>,

1.3 The manual includes detailed guidance for the selection and training of AIS personnel. Doc 8126 references provide guidance for the training of AIS personnel, including

- Selection Principles;
- Selection Process;
- Training and Training Courses;
  - New Entrant Selection;
  - Core Training;

Training Assessment;  
Task Specific OJT;  
Performance Assessment; and  
Career Development

- Sample Selection and Training Process;
- Sample Training Checklists;
- Sample Trainee Assessment Debrief Form;
- Sample Competency Grading Criteria;
- Sample Performance appraisal;
- Training guidelines for NOTAM handling and PIB

Checklist of Considerations

Regulatory Considerations

**1.4 Regulations must be established supporting the requirements for training for AIS personnel, specified in Annex 15 section 3.7.4.**

Processes and Procedures

**1.5 Training Needs Analysis**

Training Needs Analysis (TNA) is a generic term used to describe the process for determining the training required in order to satisfy a specified outcome. A TNA may apply to an individual, a business unit or a broader target audience.

Development of the TNA involves comparing existing knowledge and skill against the required knowledge and skill, the results of which will enable a relevant Training Plan to be developed.

**1.6 Process for developing the TNA**

The general requirement for all TNAs is to determine:

What knowledge and skill does the candidate currently have?

What knowledge and skill does the candidate require?

What gap exists between current and required? (i.e. what training is needed to fill the knowledge and skill gap(s)).

1.7 **Recognition of Prior Learning (RPL)**

RPL is a form of assessment used to determine whether a trainee has the required knowledge, skills and application (or combinations of these) that have been acquired previously through life experience, formal training and previous work experience needed to meet the standards of the course.

Human Performance

1.8 **Training of Senior Management**

Senior Management personnel of all data originator, AIS and data aeronautical information production organizations should be trained in relevant aspects of AIS/AIM including

- State obligations under the Annexes to the Convention on Civil Aviation;
- State regulations supporting the Standards and Recommended Procedures (SARPS) of the Annexes;
- Quality Management Systems for Aeronautical Information;
- Requirements for advance notification of new or amended aeronautical information

1.9 **Career Planning for AIS/AIM Staff:**

AIS/AIM should be established as a separate specialization, with structured career development and progression and other incentives.

AIS/AIM should not be used as a temporary deployment option for de-qualified personnel from other specializations.

1.10 **Enhance the motivation by achieving mastery of operational processes**

Ensure complete understanding of the purpose and context of operational processes to enhance the motivation to achieve the objectives:

- Quality assurance of AIS static and dynamic data including robust processes for cross checking;
- The purpose and context of setting numerical targets; and
- The critical importance of adhering to process, and of reporting and rectifying process gaps.

1.8 **Understanding Transition**

Evolution from AIS to AIM will occur over an extended period, with present and future styles of operation proceeding in parallel, until staff eventually cease to be involved in detailed day-to-day information product provision.

In the near to medium term re-training of existing staff will need to be undertaken, taking into account new skill requirements during recruitment and selection processes, to reflect the transition to an information management process rather than the current information product environment.

1.9 **AIS to AIM People Strategy Guidance Material**

ICAO DOC 7192-AN/857 Part E3

Training Manual for Aeronautical Information Services Personnel Preliminary Edition – 2005

Eurocontrol Human Factors

AIS Training Development Guidelines Edition 1, 2007

Eurocontrol Common AIS Staff Profiling

Annex 15 Quality Assurance System ISO 9000

Within the Quality System, the objectives of skills and competency management must include:

Identification of functions to be performed;

Establishment of the knowledge and skills required for each step of the process; and

Assurance that the personnel assigned to those functions have the required knowledge and skills and that they are competent to perform those functions.

1.10 **Competency Considerations**

<b>Behaviour Strengths</b>			
<ul style="list-style-type: none"> <li>• <b>Adaptable</b></li> <li>• <b>Analytical</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Business sense</b></li> <li>• <b>Fast learner</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Innovator</b></li> <li>• <b>Multi-Tasker</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Resourceful</b></li> <li>• <b>Service Orientated</b></li> </ul>
<b>Core Competencies</b>			

<ul style="list-style-type: none"> <li>➤ <b>Critical examining</b></li> <li>➤ <b>Information analysis</b></li> <li>➤ <b>Operational knowledge</b></li> <li>➤ <b>Professional expertise</b></li> <li>➤ <b>Adherence to procedure</b></li> <li>➤ <b>Safety culture</b></li> <li>➤ <b>ATC safety conscious</b></li> <li>➤ <b>Language skills</b></li> </ul>	<ul style="list-style-type: none"> <li>➤ <b>Judgement and decision making</b></li> <li>➤ <b>Reliability</b></li> <li>➤ <b>Accuracy</b></li> <li>➤ <b>Methodical</b></li> <li>➤ <b>Selective attention</b></li> <li>➤ <b>Quality focussed</b></li> <li>➤ <b>Customer focused</b></li> </ul>
<p><b>Business Competencies</b></p>	
<p><i>Critical</i></p> <ul style="list-style-type: none"> <li>➤ <b>Communication skills</b></li> <li>➤ <b>Conflict management</b></li> <li>➤ <b>Continual learning</b></li> <li>➤ <b>Planning and organisation/Time management</b></li> <li>➤ <b>Technical credibility</b></li> <li>➤ <b>Technology management</b></li> </ul>	<p><i>Secondary</i></p> <ul style="list-style-type: none"> <li>➤ <b>Administration</b></li> <li>➤ <b>Business/operations awareness</b></li> <li>➤ <b>Cultural awareness</b></li> <li>➤ <b>Human resource management</b></li> </ul>

## **P11 – Electronic AIP**

*The integrated aeronautical information package will not be phased out. On the contrary, it will be adapted to include the new data products needed during the transition to AIM.*

*The electronic version of the AIP will be defined in two forms: a printable document and one that can be viewed by web browsers.*

### Annex 15 – Aeronautical Information Services

1.1 Annex 15 specifies Standards and Recommended Practices (SARPS) for Electronic AIP:

#### *4.6 Electronic AIP (eAIP)*

*4.6.1 Recommendation.— The AIP, AIP Amendment, AIP Supplement and AIC should also be published in a format that allows for displaying on a computer screen and printing on paper.*

*Note 1.— This composite electronic document is named “Electronic AIP” (eAIP) and may be based on a format that allows for digital data exchange.*

*Note 2.— Guidance material for the production and provision of the eAIP is contained in Doc 8126.*

*4.6.2 When provided, the information content of the eAIP and the structure of chapters, sections and sub-sections shall follow the content and structure of the paper AIP. The eAIP shall include files that allow for printing a paper AIP.*

*4.6.3 Recommendation.— When provided, the eAIP should be available on a physical distribution medium (CD, DVD, etc) and/or online on the Internet.*

*Note.— Guidance material on the use of the Internet is contained in Guidelines on the Use of the Public Internet for Aeronautical Applications (Doc 9855).*

#### Checklist of Considerations

1.2 **eAIP Content**

States should ensure the eAIP includes all components of the integrated aeronautical information package defined in Annex 15, and complies with the Annex requirements for content and structure.

1.3 **Accessibility**

The eAIP should be accessible on the public internet, with provision for Internet Accessible

Open access to the eAIP should be permitted, either without the need for registration or, if registration is required, with access to eAIP being automatically and immediately available.

1.4 **Authorization**

Ensure the eAIP has the unconditional authority of the State, without disclaimers referring to a separately published paper product

1.5 **Reporting to ICAO Regional Office**

eAIP implementation and its internet hyperlink should be reported to the ICAO Asia/Pacific Regional Office.

On receipt of notification from the ICAO Asia/Pacific Regional Office, discontinue the forwarding of paper or CD copies of AIP, AIP SUP, AIC and NOTAM Checklists to the Regional Office. (Requirements for distribution to ICAO Headquarters remain unchanged)

1.6 **Digital eAIP**

eAIP should stored be in digital form, with the displayed content of the eAIP extracted from a database.

eAIP content should be in a format that allows for display on computer screens and printing on paper.

1.7 **Information Exchange**

AIXM 5 should be used for the exchange of digital aeronautical data.

1.8 **Xxxx**