

# **Electronic AIP Specification**

# Electronic AIP Specification

# Table of Contents

Executive Summary .....	xi
1. Introduction .....	1
1.1. The Need for the Electronic AIP Specification .....	1
1.2. History of the Specification .....	1
1.3. Benefits of the Electronic AIP .....	1
1.4. Relationship with ICAO .....	2
1.5. The Aeronautical Information Management Context .....	2
2. eAIP Specification Overview .....	3
2.1. General .....	3
2.2. Technology .....	3
2.2.1. What is XML .....	3
2.2.2. What is a DTD .....	4
2.2.3. What is XSLT .....	4
2.2.4. What is XSL-FO .....	4
2.2.5. What is SVG .....	4
2.3. EUROCONTROL eAIP - Publication Process .....	4
2.3.1. Default Process .....	4
2.4. Open Source .....	6
2.4.1. eAIP Core and Extended Toolbox Software .....	6
2.4.2. XHTML .....	6
3. eAIP Specification .....	7
3.1. Status of the Specification .....	7
3.2. Compliance .....	7
3.2.1. Definition .....	7
3.2.2. How to Check Compliance .....	7
3.2.3. eAIP Contents .....	7
3.2.4. History of Published eAIPs .....	8
3.2.5. File Formats .....	9
3.2.6. File Naming Conventions .....	9
3.3. eAIP Specification .....	10
3.3.1. eAIP DTD .....	10
3.3.2. Additional Rules .....	12
3.3.3. Graphics Support .....	15
3.3.4. Stylesheets .....	17
3.4. License .....	17
4. eAIP Amendments .....	19
4.1. Introduction .....	19
4.2. DTD Aspects .....	19
4.3. Procedures .....	19
4.3.1. Definitions .....	19
4.3.2. Old Changes .....	20
4.3.3. AIRAC Cycle Aspects .....	20
4.3.4. Amendment Validity .....	20
5. Multilingual eAIP .....	23
5.1. Introduction .....	23
5.1.1. XML Version .....	23
5.1.2. HTML Version .....	23
5.1.3. XSL-FO and PDF Versions .....	23
5.2. Internationalisation and Localisation .....	23
5.2.1. Localisation .....	23

5.2.2. How Localisations are Selected? .....	23
5.2.3. What is NOT Language-independent? .....	24
5.3. Reference .....	24
6. Safety and Security Considerations .....	25
6.1. Introduction .....	25
6.1.1. Scope .....	25
6.1.2. Data Integrity .....	26
6.1.3. Documentation .....	26
6.2. What Kind of Security? .....	26
6.3. eAIP Integrity .....	27
6.3.1. Electronic Signature Process .....	27
6.4. Existing Implementation in the AIS community .....	28
6.5. eAIP Security Risks and Mitigation Strategies .....	28
6.5.1. Introduction .....	28
6.5.2. Risk Classification .....	28
6.5.3. Risks .....	29
6.5.4. Proposed Mitigation .....	33
7. Screen and Paper Presentation .....	35
7.1. Introduction .....	35
7.2. User Requirements .....	35
7.3. HTML Specification .....	36
7.3.1. General .....	36
7.3.2. eAIP History Page .....	37
7.3.3. eAIP Cover Page and Menu .....	41
7.3.4. Help File .....	57
7.3.5. AIP Content .....	58
7.3.6. AMDT Content .....	61
7.3.7. AIP Supplement Content .....	62
7.3.8. AIC Content .....	64
A. References and Useful Links .....	67
B. Glossary .....	69
C. EUROCONTROL DTD Source Files .....	71
C.1. Introduction .....	71
C.2. eAIP.dtd .....	71
C.3. eAIP-qname.mod .....	73
C.4. eAIP-model.mod .....	78
C.5. eAIP-attrs.mod .....	80
C.6. eAIP-structure.mod .....	81
C.7. eAIP-gen.mod .....	82
C.8. eAIP-enr.mod .....	86
C.9. eAIP-ad.mod .....	91
C.10. eAIP-block.mod .....	98
C.11. eAIP-inline.mod .....	101
C.12. eAIP-amdt.mod .....	102
C.13. eAIP-gentables.mod .....	103
C.14. eAIP-enrtables.mod .....	104
C.15. eAIP-sup.mod .....	113
C.16. eSUP-structure.mod .....	114
C.17. eAIC-structure.mod .....	115
C.18. eAIC-eSUP.mod .....	116
C.19. Change Descriptions .....	116
C.19.1. ENR 4.3 GNSS Chapter .....	116

C.19.2. Amendment Groups .....	117
C.19.3. See-supplement .....	118
C.19.4. Flexible Use of Airspace (FUA) .....	119
C.19.5. Route Track .....	119
C.19.6. SID/STAR .....	120
D. eAIP DTD Source Files .....	123
D.1. eAIS-package.dtd .....	123
D.2. eAIS-package-qname.mod .....	124
D.3. eAIS-package-model.mod .....	125
D.4. eAIS-package-attrs.mod .....	127
D.5. eAIS-package-structure.mod .....	127



## List of Figures

3.1. SVG chart sample .....	16
7.1. eAIP History Page .....	37
7.2. Currently Effective eAIP .....	38
7.3. eAIP Next Issues .....	39
7.4. eAIP Expired Issues (Archives) .....	39
7.5. eAIP Cover Page and Table of Contents .....	41
7.6. Cover Page .....	42
7.7. Menu .....	43
7.8. AIP Table of Contents .....	49
7.9. AMDT Table of Contents .....	52
7.10. SUPs Table of Contents .....	54
7.11. AICs Table of Contents .....	56
7.12. AIP Content .....	58
7.13. AIP Content Amendments .....	60
7.14. AMDT Content .....	61
7.15. AIP Supplement Content .....	62
7.16. AIC Content .....	64



## List of Tables

3.1. eAIP structure overview .....	11
6.1. Security Aspects .....	26
6.2. ....	28
6.3. ....	29
6.4. ....	30
6.5. ....	31
6.6. ....	31
6.7. ....	32
6.8. ....	32



# Executive Summary

By 1998, in the quest for improved quality, efficiency and economy, the Aeronautical Information Services (AIS) of the European Civil Aviation Conference (ECAC) States had started to publish their Aeronautical Information Publications (AIPs) in electronic format. To address the lack of a common publishing standard and the need for harmonisation and coordination, EUROCONTROL developed the Electronic AIP (eAIP) specification.

The eAIP Specification and its associated guidance material was developed between the years 2000-2004 as a project of the AIS AHEAD Programme. Since 2004, it has been enhanced and maintained by the Aeronautical Information Management (AIM) Domain of EATM. It provides a standard way to:

- publish the content of an AIP (including AIP Amendments (AMDT), AIP Supplements (SUP) and Aeronautical Information Circulars (AIC)) in a structured electronic format;
- visualise the content of an AIP on a computer screen, using Web technology.

The eAIP Specification is fully compliant with the International Civil Aviation Organisation (ICAO) requirements for AIP content and structure, as laid down in ICAO Annex 15. In addition, the eAIP Specification enforces a strict application of the ICAO requirements concerning the AIP structure.

The use of the eXtensible Markup Language (XML) for the eAIP Specification guarantees that the eAIP is a truly electronic document. The information content is completely separated from its presentation, which, in turn, may be tailored to support every target media.

The central component of the eAIP Specification is the eAIP Document Type Definition (DTD). This is complemented by additional rules, stylesheets, security considerations, etc. A series of eAIP Manuals and proof of concept tools are also provided, each targeting a specific stakeholder category: users, editors and developers.

The eAIP Specification has undergone comprehensive testing and validation, which has mainly been completed through pilot implementations initiated in Belgium, Slovenia, The Netherlands, Armenia, Moldavia, Germany, Slovak Republic, Italy and Latvia. The contribution of these States to the development of the eAIP Specification is hereby acknowledged.



# Chapter 1. Introduction

## 1.1. The Need for the Electronic AIP Specification

In the 1990s there was an increasing trend in the European area of using electronic means for the production of AIS publications.

The isolated development undertaken by some States, however, resulted in an unnecessary duplication of effort, incompatibility problems and divergent implementations. The diverse technical solutions resulted in different ways of browsing/navigating the AIP content on screen. The consequence of this was that users had to become accustomed to different styles, navigation structures and presentation formats when browsing a variety of AIPs.

There was a clear need for a standard. Thus, EUROCONTROL decided to develop an Electronic AIP (eAIP) Specification with the aim of harmonising the publication and consultation of the AIP in electronic format.

## 1.2. History of the Specification

Between 2000 and 2001, EUROCONTROL contracted Mekon Ltd. to develop an XML DTD for the AIP. XML is a subset of the Standard Generalized Markup Language (SGML, ISO 8879). Since 1998, when it was published by the World Wide Web Consortium (W3C), XML has rapidly become the de-facto industry standard for electronic data interchange.

The first draft version of the AIP DTD was finalised in April 2001 and was inspired by the DocBook DTD. The development of stylesheets to be used for converting the XML files into HyperText Mark-up Language (HTML) format (for browsing) and Portable Document Format (PDF) format (for printing) was also undertaken.

From August 2001, EUROCONTROL has contracted Moltek Ltd. and their partner Synclude Ltd. to continue the work on the DTDs and the stylesheets with the help of a number of pilot States. The pilot implementations initiated in Belgium, Slovenia, The Netherlands, Germany (military AIP), Armenia and Moldova have significantly contributed to the improvement, testing and validation of the eAIP Specification.

## 1.3. Benefits of the Electronic AIP

The eAIP has advantages for both producers and users. The on-screen presentation element of the eAIP Specification was validated with a group of real users, by way of a Usability Study.

Some of the most important advantages for users of an eAIP are listed below:

- ease of browsing, facilitated by the HTML technology (hot links, tool tips, etc.);
- **may be easily archived;**
- **proven authenticity of the document (if digitally signed by the issuing AIS);**
- the ability to visualise changes (both in text and graphics);
- no maintenance effort (no time spent on page replacement at every amendment);
- easily accessible - it can be made available to the whole company (no need to go to the library);

- no postal delays (if distributed through the Internet).

Some of the advantages for the producers (AIS offices), identified during the pilot implementation phase, are also listed below:

- improved AIP product, with increased consistency, integrity and usability;
- HTML and PDF produced from the same source;
- facilitates the production of derived products (Visual Flight Rules (VFR) Guide, etc.);
- **may be easily archived;**
- **ability to guarantee the integrity and authenticity of the document by digital signatures;**
- the majority of users do not need to subscribe to paper amendments;
- technological leap forward for AIS;
- **reduced cost for internal copies;**
- reduced risk and cost when compared to an isolated development;
- easier to create integrated regional AIP.

## 1.4. Relationship with ICAO

Although run by EUROCONTROL primarily for the benefit of the ECAC area, the project took into account that AIS is a global business and was developed to ensure that the eAIP Specification is globally applicable.

The eAIP Specification is fully compatible with the ICAO Standards and Recommended Practices (SARPs). The current paper-based AIP, including Amendments, can be produced from the eAIP files.

The eAIP Specification is fully compliant with the ICAO requirements for AIP content and structure, as laid down in ICAO Annex 15. In addition, through the use of the XML DTD technology, the requirements for AIP structure are enforced by the eAIP Specification in a way which is not possible for a paper document.

## 1.5. The Aeronautical Information Management Context

The eAIP is an enabler for Aeronautical Information Management (AIM): information content is separated from presentational aspects and the user can select and further process data directly from the eAIP in electronic format, according to his needs. All electronic media, whether on-line or off-line - Internet, intranet, CD-ROM and DVD - can be supported.

The EUROCONTROL eAIP is not a software tool. It is a concept and a technical specification. It is a foundation on which aeronautical information users and industry can define and build the tools they need in order to exploit the "electronic AIP" concept to its full potential.

## Chapter 2. eAIP Specification Overview

### 2.1. General

The EUROCONTROL eAIP is a *specification* for the *publication* and *exchange* of the Aeronautical Information Publication (AIP) in an electronic format.

- *Specification*: the eAIP defines an electronic format and the general usage process;
- *Publication*: the eAIP is designed to be published, be it on screen or on paper and used by people;
- *Exchange*: to a certain extent, the eAIP can be used for computer-to-computer data exchange. However, the eAIP Specification does not offer the same capabilities for structured aeronautical data exchange as the Aeronautical Information Exchange Model (AIXM).

The essential difference between the two is that AIXM models the aeronautical information, while the eAIP models the AIP document. AIXM is primarily intended for computer-to-computer aeronautical data exchange. The eAIP is primarily intended to provide the AIP content for publication in various formats and on various media, according to users' needs.

### 2.2. Technology

The EUROCONTROL eAIP is based on XML . An electronic AIP is in fact an XML document, conforming to the eAIP DTD.

The eAIP in XML is transformed into other formats using eXtensible Stylesheet Language Transformations (XSLT):

- for on-screen display, the eAIP is transformed into Hyper-Text Mark-up Language (HTML);
- for a paper copy, the eAIP is transformed into eXtensible Stylesheet Language Formatting Objects (XSL-FO). Software tools must be used to print XSL-FO. Currently, the most convenient method is to first convert XSL-FO to PDF or PostScript and then print those files.

Charts and graphics can be made available in various formats, and an effective one for aeronautical charts is Scalable Vector Graphics (SVG). All these technologies are official recommendations (standards) published by the W3C (World Wide Web Consortium).

#### 2.2.1. What is XML

XML stands for eXtensible Markup Language. XML is a subset of the Standard Generalized Markup Language (SGML, ISO 8879). Since 1998, when it was published as a recommendation by the W3C, XML has rapidly become the de-facto industry standard for electronic data interchange.

XML is a meta-language (a language to define other languages). It allows us to define an "AIP language" for computers. Using the EUROCONTROL eAIP language, people and computers can talk to each other using the same vocabulary and grammar.

XML was selected because it fulfils the eAIP's main objective: it is commonly used for structuring documents and it is suitable for both human-to-computer and computer-to-computer interaction. Also, since 1998 it has been a recognised standard, widely adopted by the software developers in many industries.

### **2.2.2. What is a DTD**

DTD stands for Document Type Definition. It is a formal representation of XML documents' structure. To follow our previous analogy with languages, the eAIP DTD is a formal definition of the eAIP language's vocabulary and grammar.

### **2.2.3. What is XSLT**

XSLT stands for eXtensible Stylesheet Language Transformations. It is an XML-based language that allows the transformation of an XML document into another XML document (or into text document as well). In the eAIP context, XSLT is used to convert eAIP files from XML into HTML format or XSL-FO format.

### **2.2.4. What is XSL-FO**

XSL-FO stands for eXtensible Stylesheet Language Formatting Objects. It is an XML-based language that allows the expression of a document with its formatting, for example, in order to print it on paper. In the eAIP context, XSL-FO is used to format an eAIP in order to print it on paper. With adequate software, it will be possible in the future to directly print an XSL-FO document. In the meantime, it is possible to use software that converts XSL-FO to PDF or PostScript and then print those files.

### **2.2.5. What is SVG**

SVG stands for Scalable Vector Graphics. It is an XML-based language to express 2-dimensional drawings using simple graphical objects such as lines, circles, rectangles and text, and object properties such as color, size and position. As it is written in XML, SVG charts can quite easily be linked to other XML information.

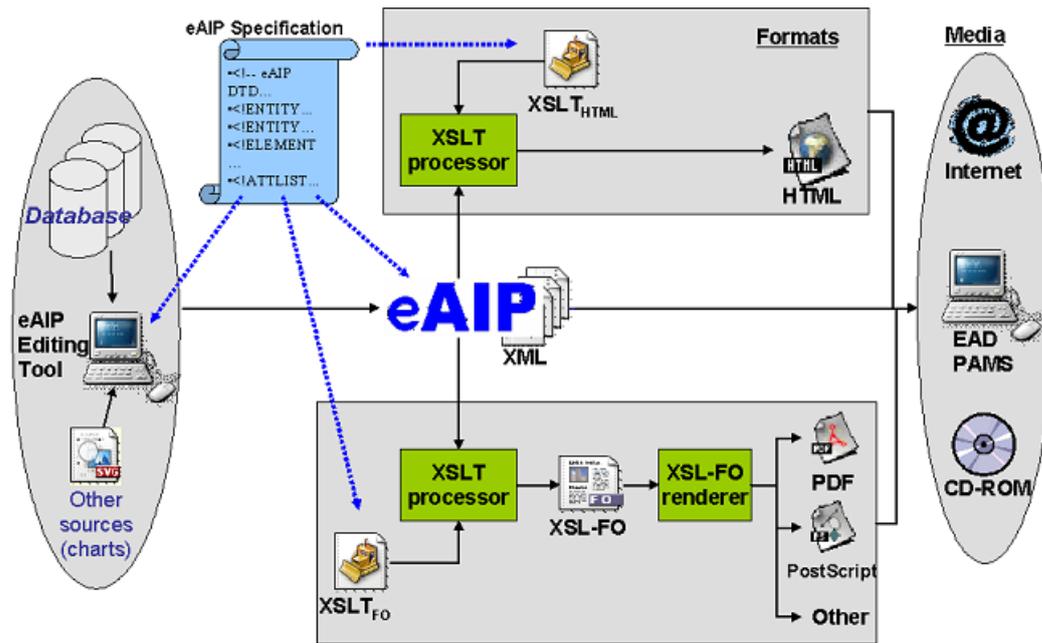
It is possible to zoom into a small portion of an SVG image and still see a very precise definition of the image. In fact, SVG image resolution is only limited by printers' resolution: graphical objects in an SVG image are defined using "vectors" (lines, curves, circles, rectangles). The shapes are re-drawn each time the user changes the zoom level, so that when zooming in on a circle, it will always be drawn as a "perfect" circle. That is, as perfect as the screen or printer is able to draw. On the other hand, with a raster (bitmap) graphic, when you zoom in on a circle, a pixelised polygon will eventually be seen.

SVG images can be interactive; for example, it is possible to highlight a single route on a route map or click on an object on a map to obtain additional information about this object.

## **2.3. EUROCONTROL eAIP - Publication Process**

### **2.3.1. Default Process**

This diagram shows the default eAIP production process from XML production to HTML and publication of an AIP on paper. Technologies used on this process are shown as well.

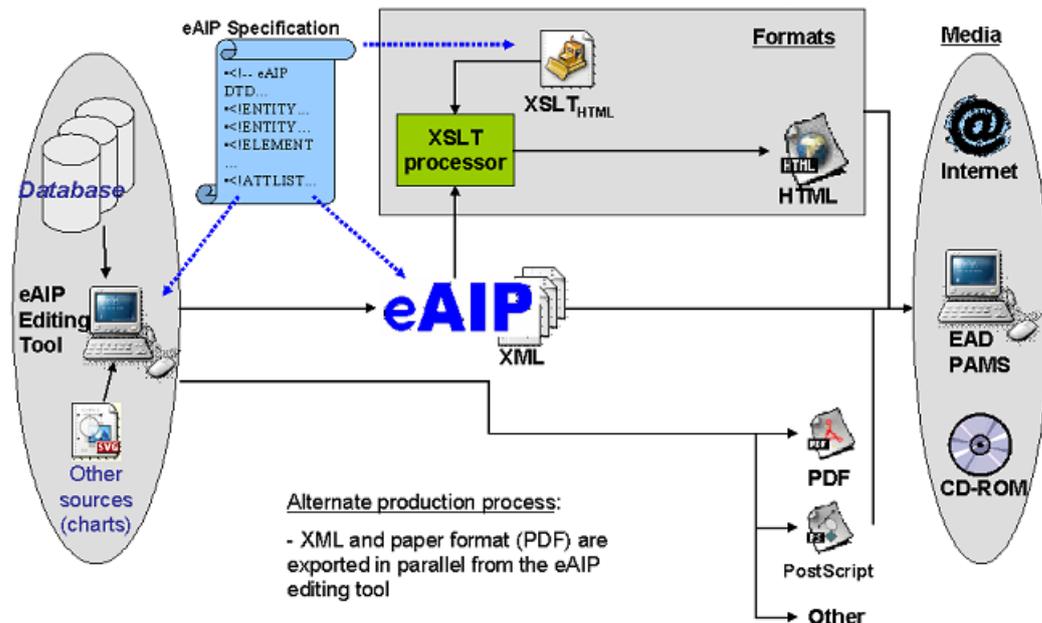


The advantage of this process is that the both the browsing format and the printing format are generated from the same XML files, which can be made available to the user.

### 2.3.1.1. Alternate Process

It is also possible that the XML files and the files in a format for printing (PDF) are produced from different sources. Structured text editors are able to produce export files both in PDF and in XML format. The advantage of such an alternate process is that the generation of the PDF files is more straight-forward.

On the other hand, the XML export process is usually embedded in the software tool and the editors do not have much control over it. Therefore, the editors must ensure at every issue that there are no discrepancies between the XML/HTML content on one side and the PDF content on the other side. The users do not have access to the original source files which were used to produce the XML and PDF format.



## 2.4. Open Source

### 2.4.1. eAIP Core and Extended Toolbox Software

The eAIP Core and Extended Toolbox software, including the DTD, the source code and documentation is provided under a specific Open Source license. Please read the file LICENSE.txt in the eAIP Core Toolbox, or the License in this document, for more details. More information on Open Source Software licensing may be found at the Open Source Initiative [<http://www.opensource.org>] organisation.



This software is OSI Certified Open Source Software. OSI Certified is a certification mark of the Open Source Initiative.

### 2.4.2. XHTML

The eXtensible HyperText Markup Language (XHTML) is used in the eAIP DTD. XHTML has the same expressive capabilities as HTML but has a stricter syntax and is XML-based. It is a more restricted subset of SGML.

Please read the file LICENSE.txt in the eAIP, or the License section in this document, for more details about XHTML licensing.

The full eAIP package is bundled with the following Open Source Software:

- SAXON XSLT Processor by Michael Kay
- Schematron 1.5 tools by David Carlisle and Rick Jelliffe (modified for the eAIP)
- Xerces XML Parser by the Apache Software Foundation
- XHTML Modularization by the World Wide Web Consortium
- OpenSSL by The OpenSSL Project
- GPG by the Free Software Foundation

They are re-distributed with permission, following their respective license. Please read the file LICENSE.txt in the eAIP, or the license in this document, for more details.

## Chapter 3. eAIP Specification

### 3.1. Status of the Specification

A stable release of the eAIP DTD can be used to produce an eAIP or to develop software based on it without the risk of losing pace with the eAIP DTD development.

The DTD may be subject to change and, therefore, subsequent eAIP development will result and new versions will be published:

- major updates, which greatly transform the structure of an eAIP document, will receive major version numbers: 2.0, 3.0, etc;
- changes in the content model that maintain the general structure but invalidate previous eAIP will receive minor version numbers: 1.1, 1.2, etc;
- small changes, which do not invalidate a previous minor version, will have sub-minor version numbers such as 1.0.4, 1.0.5, etc.

Future changes will be implemented only after consultation with the eAIP Specification stakeholders.

### 3.2. Compliance

#### 3.2.1. Definition

Compliance with the eAIP Specification may be claimed for eAIP instances that:

- are valid against the eAIP DTD for that version *and*
- follow the additional rules.

A software product may be declared compliant with the EUROCONTROL eAIP Specification if it can handle/produce/edit/etc. compliant eAIP documents.

#### 3.2.2. How to Check Compliance

##### 3.2.2.1. Informal Validation

The eAIP may be informally validated using the tools available in the eAIP Core Toolbox.

##### 3.2.2.2. Formal Validation

To formally validate an eAIP it shall be validated against the official DTD published on EUROCONTROL's website, at the address defined in the Location section. The eAIP shall then be tested for compliance against the additional rules.

##### 3.2.3. eAIP Contents

An eAIP "package" defines a set of eAIP/eSUP and eAIC files, which are issued collectively on a common publication date. The notion of a "package" was originally introduced for facilitating the storage of eAIP documents in the European AIS Database (EAD). This concept, however, is also applicable when making eAIP files available on media other than the EAD Published AIP Management System (PAMS).

### 3.2.3.1. AIS Documents Included

An eAIP **may** contain any of the following documents:

- One AIP Amendment: Aeronautical Information Regulation and Control (AIRAC) or non-AIRAC;
- One or more AIP Supplement;
- One or more Circular.

Additionally, an eAIP **shall** contain the following information:

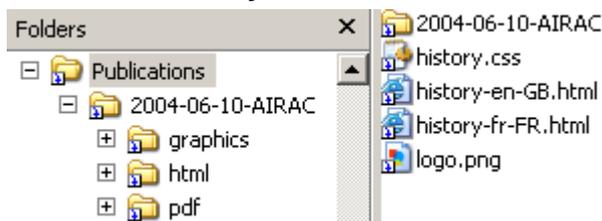
- List of AIP Supplements in force (XX-eSUPs-yy-YY.html<sup>1</sup>);
- List of Circulars in force (XX-eAICs-yy-YY.html<sup>1</sup>).

When it is necessary to announce the cancellation of an AIP Supplement or a Circular, an eAIP may not contain any documents and may only consist of the lists indicated above.

### 3.2.3.2. Media Contents

Media used to publish eAIPs may contain more than one eAIP: They may contain a newly published eAIP and, in addition, preceded eAIPs. When publishing more than one eAIPs on the same media, it is recommended that the eAIP history be published as well. This history may be published automatically.

### 3.2.3.3. Directory Structure



When publishing an eAIP, on CD-ROM or on a website, the history of published eAIPs shall be updated.

For these reasons, the base directory (named `Publications` in the illustration above) of any eAIP's directory structure shall contain the files related to the eAIPs' history and one or more directories, each containing a single eAIP. In the example above, there is only one eAIP published and it is located in the directory `2004-06-10-AIRAC`.

If the eAIP is published in HTML and PDF formats, only three directories shall be included: `html`, `pdf` and `graphics`.

If it includes the eAIP in XML format, then the `eAIP`, `eSUP` and `eAIC` directories, and the eAIP description file (`eAIS-package.xml`), are published as well.

### 3.2.4. History of Published eAIPs

The eAIP interface shall feature a "history" page: a list of published eAIPs.

<sup>1</sup>Where XX is the publishing State's ICAO country code and yy-YY the ISO language code of the document.

### 3.2.4.1. Production

The `eAIS-packages.xml` file shall be maintained by the AIS office and updated before publication of a new eAIP. It may also be generated by an AIS document management system.

### 3.2.4.2. Location

The `eAIS-packages.xml` file shall be located in the parent directory of all eAIPs on the production file system.

The HTML eAIP history shall be located in the parent directory of any published eAIP.

### 3.2.4.3. Validation

The `eAIS-packages.xml` file shall be valid (in the XML sense) against the eAIP DTD. This DTD is part of the eAIP Specification. A summary of this DTD is given in the next section.

### 3.2.4.4. Document Structure

`eAIS-packages`

This is the root element, containing `eAIP-package-reference` elements. It has a single attribute:

`Publication-date`

The date on which the eAIP is published.

`eAIP-package-reference`

Reference to a published eAIP.

### 3.2.4.5. Usage

This `eAIS-packages.xml` file may be used for generating the HTML eAIP history in the eAIP interface.

It may be useful for other AIS document management systems.

## 3.2.5. File Formats

As a minimum, the eAIP shall be published in three formats: XML, HTML (for browsing) and PDF (for printing). The compliance shall be formally checked for the XML format only.

Through the use of the XML, the eAIP data content is completely separated from its presentation, which, in turn, may be tailored to support every target media. While the capability to fine-tune the eAIP presentation for every media (paper, CD-ROM, Web, etc.) is an advantage for the users, it poses a challenge for the producers. They must ensure the consistency between the different formats. The most common reference format is XML. However, the reference format may vary depending on the legislation in force in the issuing State and/or the user's State. This is important for solving discrepancies between the different formats. **The producer shall clearly state which of the different formats shall be considered as prevailing in case of discrepancies.**

## 3.2.6. File Naming Conventions

A naming convention is recommended for the eAIP XML files. Whilst this is only a recommendation, the Core and Extended Toolboxes and eAIP manuals refer to files with this naming convention.

The eAIP XML files should be named `XX-section-yy-YY.xml`, where

- XX indicates the issuing State (by its ICAO country code);
- section indicates the AIP section;
- yy-YY indicates the language. The language is composed of an ISO language code (ISO 639) and a mandatory ISO country code (ISO 3166), separated by a dash ('-').

Examples of file names complying with this convention are `EC-locales-en-GB.xml` and `EC-ENR-3.1-en-GB.pdf`.

## 3.3. eAIP Specification

The eAIP Specification is composed of a DTD and "additional rules". The eAIP HTML presentation and functionality is specified in the eAIP HTML Specification document. This specification is complemented by an eAIP Core Toolbox which provides proof of concept conversion code that implements the requirements of the HTML specification. The requirements for the presentation of the eAIP in PDF format are as specified by ICAO in the paper AIP specification. The eAIP Extended Toolbox provides proof of concept code for the ICAO PDF (paper) specification.

The stylesheets used for converting XML into HTML, which complement the specification, are not mandatory. However, the eAIP user community expects a standard layout and navigation structure for all eAIP implementations. This can be achieved through a consistent application of the EUROCONTROL eAIP stylesheets.

### 3.3.1. eAIP DTD

#### 3.3.1.1. Location

The official location of the eAIP DTD is [http://www.eurocontrol.int/ais/eaip/dtd/\[version number\]/eAIP.dtd](http://www.eurocontrol.int/ais/eaip/dtd/[version number]/eAIP.dtd) [[www.eurocontrol.int/ais/eaip/dtd/version number/eaip.dtd](http://www.eurocontrol.int/ais/eaip/dtd/version number/eaip.dtd)]. This is only useful for software tools which need to access the official DTD: it is not convenient for downloading the DTD, as it is composed of a large number of files. The DTD is part of the eAIP Core Toolbox, which is available for download on the eAIP website [<http://www.eurocontrol.int/eaip>]. The DTD is not easy to read, even for XML developers, because it makes use of XHTML Modularisation. The DTD documentation is more useful for this.

#### 3.3.1.2. Overview

The eAIP DTD defines a number of XML elements. They are listed below, grouped by category.

##### 3.3.1.2.1. Root Elements

The root elements are e:eAIP for an AIP document, e:eSUP for a Supplement document and e:eAIC for a Circular. All other elements are descendants of these three roots in the element hierarchy.

### 3.3.1.2.2. AIS-specific Structural Elements

#### 3.3.1.2.2.1. AIP Documents

**Table 3.1. eAIP structure overview**

eAIP	GEN	GEN-0	GEN-0.1, GEN-0.2, GEN-0.3, GEN-0.4, GEN-0.5, GEN-0.6
		GEN-1	GEN-1.1, GEN-1.2, GEN-1.3, GEN-1.4, GEN-1.5, GEN-1.6, GEN-1.7
		GEN-2	GEN-2.1, GEN-2.2, GEN-2.3, GEN-2.4, GEN-2.5, GEN-2.6, GEN-2.7
		GEN-3	GEN-3.1, GEN-3.2, GEN-3.3, GEN-3.4, GEN-3.5, GEN-3.6
		GEN-4	GEN-4.1, GEN-4.2
	ENR	ENR-0	ENR-0.1, ENR-0.2, ENR-0.3, ENR-0.4, ENR-0.5, ENR-0.6
		ENR-1	ENR-1.1, ENR-1.2, ENR-1.3, ENR-1.4, ENR-1.5, ENR-1.6, ENR-1.7, ENR-1.8, ENR-1.9, ENR-1.10, ENR-1.11, ENR-1.12, ENR-1.13, ENR-1.14
		ENR-2	ENR-2.1, ENR-2.2
		ENR-3	ENR-3.1, ENR-3.2, ENR-3.3, ENR-3.4, ENR-3.5, ENR-3.6
		ENR-4	ENR-4.1, ENR-4.2, ENR-4.3, ENR-4.4, ENR-4.5
		ENR-5	ENR-5.1, ENR-5.2, ENR-5.3, ENR-5.4, ENR-5.5, ENR-5.6
		ENR-6	—
	AD	AD-0	AD-0.1, AD-0.2, AD-0.3, AD-0.4, AD-0.5, AD-0.6
		AD-1	AD-1.1, AD-1.2, AD-1.3, AD-1.4
		AD-2, Aerodrome	AD-2.1, AD-2.2, AD-2.3, AD-2.4, AD-2.5, AD-2.6, AD-2.7, AD-2.8, AD-2.9, AD-2.10, AD-2.11, AD-2.12, AD-2.13, AD-2.14, AD-2.15, AD-2.16, AD-2.17, AD-2.18, AD-2.19, AD-2.20, AD-2.21, AD-2.22, AD-2.23, AD-2.24
		AD-3, Heliport	AD-3.1, AD-3.2, AD-3.3, AD-3.4, AD-3.5, AD-3.6, AD-3.7, AD-3.8, AD-3.9, AD-3.10, AD-3.11, AD-3.12, AD-3.13, AD-3.14, AD-3.15, AD-3.16, AD-3.17, AD-3.18, AD-3.19, AD-3.20, AD-3.21, AD-3.22, AD-3.23

#### 3.3.1.2.2.2. AIP Supplements

eSUP, Address, Address-part, References, SUP-section.

#### 3.3.1.2.2.3. Circulars

eAIC, Address, Address-part, References.

### 3.3.1.2.3. AIS-specific Elements

#### 3.3.1.2.3.1. Amendments and Supplements

**Abstract**, Affects, Amendment, Deleted, **Description**, eAIP-reference, **Group**, Inserted, See-supplement (deprecated), Supplement.

#### 3.3.1.2.3.2. GEN-specific Tables

Abbreviations: Abbreviation, Abbreviation-description, Abbreviation-details, Abbreviation-ident.

Locations: Location, Location-definition, Location-ident, Location-name, Location-table.

#### 3.3.1.2.3.3. ENR-specific Tables

Routes: Route, Route-designator, Route-remark, Route-RNP.

Segment: Route-segment, Route-segment-airspace-class, Route-segment-ATC, Route-segment-COP, Route-segment-length, Route-segment-lower, Route-segment-lower-override, Route-segment-minimum,

Route-segment-remark, Route-segment-remark-reference, Route-segment-RNP, Route-segment-upper, Route-segment-width, Route-segment-mag-track, Route-segment-reverse-mag-track, Route-segment-reverse-true-track, Route-segment-true-track, Route-segment-usage, Route-segment-usage-reference, Route-segment-usage-direction, Route-segment-usage-level-type.

Significant point: Significant-point-ATC, Significant-point-description, Significant-point-reference, Significant-point-remark, Significant-point-remark-reference, Navaid-indication, Navaid-indication-distance, Navaid-indication-radial.

Nav aids: Navaid, Navaid-declination, Navaid-elevation, Navaid-frequency, Navaid-hours, Navaid-ident, Navaid-magnetic-variation, Navaid-name, Navaid-remarks, Navaid-table, Navaid-type.

Designated points: Designated-point, Designated-point-ident, Designated-point-table, SID-STAR.

### **3.3.1.2.4. Generic & Editorial Elements**

Addresses: Address, Address-part. Graphics: Figure, Graphic-file. Misc. block: Generated, NIL, Sub-section, Title. Misc. inline: Date-time, Latitude, Longitude.

## **3.3.2. Additional Rules**

### **3.3.2.1. About Additional Rules**

#### **3.3.2.1.1. Introduction**

The current list of additional rules is based on the experience gathered through the eAIP Pilot Implementations. In future, this list is expected to be extended.

There are two sets of rules:

- **Mandatory Rules** are part of the eAIP Specification and must be followed;
- **Optional Rules** are not part of the eAIP Specification and are only recommendations.

#### **3.3.2.1.2. Why Additional Rules?**

The eAIP "language" is composed of a vocabulary (elements, attributes and lists of values), which is entirely defined in the DTD, and a grammar, which is split between the DTD and the additional rules. This grammar split is due to the limitations of the DTD technology, which does not allow the expression of all the grammar rules needed. As many constraints as technically possible have been defined in the DTD. In future, the DTD may be replaced with an XML Schema. Even then, some additional rules may be needed, due to the inherent limitations of any schema language.

### **3.3.2.2. Mandatory Rules**

#### **3.3.2.2.1. Data Structure Rules**

##### Route Track

Route segments within the same route may not have mixed true track and magnetic track.

##### Route Sequence

A Route sequence of Significant-point-reference and Route-segment elements shall begin and end with a Significant-point-reference.

#### Route-segment

The first non-deleted element following a non-deleted Route-segment shall be a Significant-point-reference. The same assumption may be made about non-inserted ones but it should be expected that eAIP is valid before the amendment anyway.

#### Significant-point-reference

The first (if any) non-deleted element following a non-deleted Significant-point-reference shall be a Route-segment. The same assumption may be made about non-inserted ones but it should be expected that the eAIP is valid before the amendment anyway.

#### Graphic-files

If there are 2 Graphic-file elements inside a Figure element, their Updated attribute shall be Inserted for one and Deleted for the other.

#### Amendment Attributes

Elements, whose Updated attribute has a different value to "No", shall have an id and an Updated-ref attribute.

#### Nested Amendments

Amendments may not be nested. This means that any element whose Updated attribute is different to "No" may not have a descendant whose Updated attribute is different to "No".

#### NIL

A section may have three types of content:

- NIL only (it cannot be marked as deleted or inserted);
- Some block elements but not NIL (they cannot be marked as deleted or inserted);
- NIL followed by block elements, in which case either NIL must be marked as inserted and the other elements as deleted, or the opposite: NIL is deleted and the others inserted. This 3rd case is addressed by this additional rule (Both other cases are addressed by the AMDT-validity definition).

### **3.3.2.2.2. Data Consistency Rules**

#### ToC and Id

An element whose Toc attribute is set to "Yes" shall have an id attribute.

#### MIME Types

The Type attribute of Graphic-file elements shall contain a "known" MIME type. The list of known MIME types is given in XML format in the file mime-types.xml (in directory tools/Validator in the eAIP Core Toolbox). All eAIP software implementation shall be able to handle these MIME types.

#### Graphics and Paper AIP

If the xlink:show attribute on e:Graphic-file is set to "replace" or "new", then the attribute Page-name shall not be empty.

#### Internal Links

Internal links (x:a elements with a href attribute value beginning with "#") shall point to an existing element. That is, the value after the "#" character shall be the id of an element in the same eAIP document.

#### Internal References

Internal references shall refer to an existing element and depend on the referrer:

- An Abbreviation shall refer to an Abbreviation-description;
- A Location shall refer to a Location-definition;
- A Significant-point-reference shall refer to a Navaid or a Designated-point;
- A Significant-point-remark-reference shall refer to a Significant-point-remark;
- A Route-segment-usage-reference shall refer to a Route-segment-usage;
- A Route-segment-remark-reference shall refer to a Route-segment-remark;
- An Aerodrome shall refer to a Location-definition;
- A Heliport shall refer to a Location-definition;
- The Updated-ref attribute shall refer to an Amendment.

#### Significant-point-ATC

Legal values are: "Request", "Compulsory" and "No-report" and they shall be expressed inside a single text node. These values may be inside child elements (typically e:Deleted and e:Inserted), but no other text shall be allowed. Text inside e:Deleted elements is not considered for this rule (as it must have been valid before the amendment).

#### Route-segment-usage-direction

Legal values are: "Forwards" and "Backwards". These values may be inside child elements (typically e:Deleted and e:Inserted), but no other text shall be allowed. Text inside e:Deleted elements is not considered for this rule (as it must have been valid before the amendment).

#### Route-segment-usage-level-type

Legal values are: "Odd" and "Even". These values may be inside child elements (typically e:Deleted and e:Inserted), but no other text shall be allowed. Text inside e:Deleted elements is not considered for this rule (as it must have been valid before the amendment).

#### Location-name

Location-name shall not be empty.

#### Location-ident

If Location-definition's Type attribute is set to "ICAO", then Location-ident shall exist and shall not be empty; for other values of this Type attribute, Location-ident has no additional rule and may be omitted.

### 3.3.2.2.3. Data Types Rules

#### Column Width

The width attribute of x:col element shall be a positive integer.

#### Dates

Effective-date and Publication-date attributes' value shall be an ISO-8601 date without time zone information.

### 3.3.2.3. Optional Rules

#### Route Segment Usage and Track

If a route segment has at least one child Route-segment-usage-reference of value "Forwards" (respectively, "Backwards"), then the route segment shall have a Route-segment-true-track (resp. Route-segment-reverse-true-track) or a Route-segment-mag-track (resp. Route-segment-reverse-mag-track) element.

#### Numbering and Id

It is recommended that the id attribute is set for an element whose Number attribute is not empty (Number creates a reference for humans but not for computers).

#### Deprecated Elements/Attributes

The following element and attribute are deprecated and will be removed from the eAIP DTD in the future. Please refer to the eAIP DTD documentation for more details.

- e:See-supplement; [dtd/tag-e\_See-supplement.html]
- e:Location's Type attribute.

#### Effective Date

Elements eAIC and eSUP may omit their Effective-date attribute but this is not recommended.

#### Links

The element's href attribute is not mandatory but it is recommended that it is provided. Note that, contrary to HTML, it is recommended that an anchor is not defined using the name attribute, but instead that an id attribute be used for the element to be referred to.

## 3.3.3. Graphics Support

### 3.3.3.1. Supported Graphics Formats

#### 3.3.3.1.1. SVG

The recommendation of the EUROCONTROL eAIP Project is for all eAIP graphics to be made available in Scalable Vector Graphics (SVG) format. SVG format offers very high quality displays and printing, with the capabilities to zoom and pan, to search for text, etc. File sizes are typically smaller than for an equivalent graphic in raster format. In addition, it is possible to add "script functions" to the SVG file, which allows for a large number of enhancements to be made. For example, it is possible to show the differences between the current and the previous version of a chart.



a format shall not be selected which has a patent claim related to it. As this is not the case for compressed GIF files, these shall be avoided (PNG format is a better alternative).

### 3.3.3.2. Embedded Versus Non Embedded

The eAIP Specification supports three different ways of referencing a graphic file in an AIP: fully embedded, embedded in paper only or external. In this context, an embedded graphic is a graphic file whose image is directly visible on the page, between two paragraphs, for instance. A graphic file which is external is not visible until the user performs some action, such as clicking on a link in HTML.

#### Fully Embedded Graphic

Such a graphic file is directly visible both in HTML format and on paper. It is part of the text flow. Typical examples are small diagrams included in the GEN part of the AIP.

#### Paper Embedded Graphic

The image is not embedded in HTML and other on-screen presentation formats; a link to the image is presented instead. The image is embedded in XSL-FO format and its derivatives (PDF, PostScript, etc.). The image still appears on paper but it is embedded in a separate page, after the last page of the current section (or the current aerodrome or heliport). Typical examples are found in the ENR and AD 2 parts of the AIP.

#### External Graphic

Rarely used, it is presented as a Web link to the graphic in HTML (the user must follow the link in order to access the image). On paper, the link is visible (i.e. the graphic address on the Web is printed) but, of course, not interactive. In PDF format, the link may be active, just like in HTML. Typical examples are addresses of the Web pages of an organisation/authority.

### 3.3.4. Stylesheets

The eAIP Specification includes XSLT and Cascading Stylesheets (CSS), to format an eAIP in a standard way. These stylesheets are not mandatory. EUROCONTROL recommends the use of these stylesheets in order to promote a consistent visual eAIP format for users. There is a set of stylesheets for HTML format and another set for PDF.

The stylesheets are part of the eAIP Core and Extended Toolboxes.

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# Chapter 4. eAIP Amendments

## 4.1. Introduction

The ICAO Annex 15 requirements for AIP amendments are fully supported by the eAIP Specification. When the eAIP is presented on-screen, in HTML format, every individual change can be clearly highlighted. Furthermore, it is possible to compare the content of the current (modified) eAIP with the content of a previous eAIP. When an eAIP is printed, in PDF format, change bars are inserted on all affected lines within the document.

Paper AIPs are kept up-to-date by removing/inserting pages at every amendment date (AIRAC and non-AIRAC). These pages are issued in the form of an AIP AMDT document. The concept of 'replacement pages' does not apply to an Electronic AIP, which is re-issued in full for every amendment. However, in order to facilitate the maintenance of a paper AIP, it is also possible to identify the pages that have been affected by the changes between two consecutive issues of the AIP in PDF format.

## 4.2. DTD Aspects

In order to support amendments, a dedicated set of XML elements and attributes have been included into the eAIP DTD. For example, new text is marked using an `Inserted` element, while deleted text is marked using a `Deleted` element. There is no special element for modified text. Instead, modified text is marked as a sequence of `Inserted` and `Deleted` elements.

There are also DTD elements, which do not have in-line text content, such as a references, graphics, etc. An `Updated` attribute, which may take the values `Inserted` or `Deleted` is used in this case. The old element will get the value `Deleted` in its `Updated` attribute and a new element of the same type will be inserted, with the new content.

Details about how the content of each individual DTD element may be amended have been included in the DTD Documentation.

## 4.3. Procedures

### 4.3.1. Definitions

#### **Inserted and Deleted Elements**

An "inserted element" is an XML element from the eAIP DTD whose `Updated` attribute has the value "Inserted" for a given AMDT. A "deleted element" is an XML element from the eAIP DTD whose `Updated` attribute has the value "Deleted" for a given AMDT.

Most elements have an `Updated` attribute, whose possible values are "Inserted", "Deleted" and "No" (which means the element is not updated in the current AMDT). See the eAIP DTD Documentation for details about a specific element. There is an element named `Inserted`, whose `Updated` attribute is always "Inserted". Similarly, there is an element named `Deleted`, whose `Updated` attribute is always "Deleted".

#### To **fix** an amendment

To definitively apply the changes of an amendment to an eAIP, remove all deleted elements (including their content) and remove inserted elements (their content remains).

### 4.3.2. Old Changes

Each eAIP issue contains markup (`Inserted` and `Deleted` XML elements and attributes) only for the changes made in that issue. Eventually, if that eAIP issue corresponds to an AIRAC amendment, the changes of the previous non-AIRAC amendment can be kept (and vice-versa).

There are a few reasons behind the decision to remove the old changes in XML. If old inserted and deleted elements are kept, then:

- the XML eAIP files may soon become very complex and even invalid, due to clashes between current and previous `Inserted` and `Deleted` elements; For the AIP to become comprehensible and unambiguous, the redundant amendment markup needs to be removed at certain intervals;
- in HTML, the functionality to 'Show/Hide Amendments' would become very complex, as it needs to distinguish between current and any previous amendments.

Before a new issue is created, a process called "fixing the amendment" has to be executed. This definitively applies the changes of an amendment to an eAIP by removing all elements marked as "deleted" (including their content) and by converting all elements marked as "inserted" so that they are seen as not amended.

It should be noted that this approach does not have a direct impact on the paper format. It is still possible to keep the old changes, by printing the PDF and inserting only the updated pages in the paper version. Naturally, the old pages are not affected.

### 4.3.3. AIRAC Cycle Aspects

The eAIP Specification allows for the publication of changes two or more AIRAC cycles in advance. However, as a full eAIP is issued special consideration is required. When an amended eAIP is issued with an effective date earlier than that of a previously issued eAIP which is not yet in force, the previous issue needs to be updated.

The full eAIP Amendment process is described in the eAIP Editor's Manual. This includes the procedure for publication of changes two or more AIRAC cycles in advance.

Users will benefit from receiving a full eAIP in which all changes are clearly marked. They will no longer be required to perform page replacement which is a costly task for the aviation community, as a whole, every AIRAC cycle. However, the flexibility and, therefore, complexity of the eAIP editor to replace the manual update process is costly.

### 4.3.4. Amendment Validity

An eAIP document is valid if it validates (in the XML sense) against an official eAIP DTD (preferably the latest published version of the eAIP DTD) **and** it follows the "additional rules". Please refer to the eAIP Specification for more details.

For the purpose of this document, we define the expression "amendment-valid": an eAIP document (presumed to contain at least one amendment) is "amendment-valid" if:

1. It is a valid eAIP **and**
2. It is still valid after the amendment mark-up it contains has been fixed **and**
3. Currently published amendments<sup>1</sup> are still "amendment-valid" with this new amendment (a new AMDT may influence AMDTs which have been published before it but are effective after it. The

new AMDT must be incorporated into those ones, which creates a correction for each of them. These corrections must be AMDT-valid).

Since this is a recursive definition, a simple rule applies:

- A valid eAIP without amendment mark-up is amendment-valid.

**Note**

<sup>1</sup> In practice, only amendments which are not yet effective need to be tested, as any new amendment should be based on the currently effective version.



# Chapter 5. Multilingual eAIP

## 5.1. Introduction

The eAIP Specification supports multilingual AIPs and the expectations of the user for each presentation media have also been incorporated. In a browser, the user expects to see the eAIP in one language, while being able to switch to another language at any time. On paper, users expect that the multilingual AIP presents the two languages in the classical style, either recto-verso or in two columns.

### 5.1.1. XML Version

For technical reasons, one eAIP document in XML contains all the AIP content for a **single language**. That language is indicated by the attribute `xml:lang` in the `e:AIP` element. When the AIP needs to be published in more than one language, the publishing organisation shall create a separate set of eAIP XML files for each language.

The main reasons for this decision are:

- the complexity of the DTD is considerably reduced, as a single language attribute is necessary;
- separating the languages allows the eAIP files to be limited to a reasonable size.

### 5.1.2. HTML Version

Using the XSLT stylesheets provided by EUROCONTROL, only one language is produced per HTML page. This follows the common approach for the majority of websites. The user is offered the capability to select his preferred language very soon after entering a website, and remain with this for the majority of the time. The eAIP menu, which is situated in the upper left-hand corner of every eAIP page in HTML, shall contain a link to the same section in other languages.

### 5.1.3. XSL-FO and PDF Versions

At the time of writing, work is underway to allow for the combination of two language versions in XSL-FO.

It should be noted that when using an alternate production process, where both the PDF and the XML files are produced from within a structured editor, this is not an issue. The PDF files may be created directly with two or more languages embedded in the same document (recto-verso or multiple columns).

## 5.2. Internationalisation and Localisation

### 5.2.1. Localisation

In the eAIP, a language is identified by a language tag, composed of an ISO language code (ISO 639) and a mandatory ISO country code (ISO 3166), separated by a dash ('-'). By convention, language codes are always in lower case while country codes are always in upper case. This convention is not imposed by ISO standards but is good XML practice.

### 5.2.2. How Localisations are Selected?

An eAIP document declares its language by way of the `xml:lang` attribute of the `e:AIP` element.

For each item of static text to be output, the stylesheet (namely, g-gettext.xslt) searches for an exact match with the language tag. If no exact match is available, it produces an error message.

### **5.2.3. What is NOT Language-independent?**

The current stylesheets contain some static output consisting of numbers and some punctuation characters. Also, no provision is made for languages that are not written left to right, top to bottom. For these language, additional work will be required to adapt the stylesheets.

## **5.3. Reference**

RFC 1766 [<http://www.ietf.org/rfc/rfc1766.txt>]

This document explains the use of ISO language and country codes in the context of Internet communication.

# Chapter 6. Safety and Security Considerations

## 6.1. Introduction

For the purpose of this document, the following definitions apply:

### Safety

Freedom from unacceptable risk [*EUROCONTROL, SRC DOC 4, Glossary of Terms and Definitions & List of Acronyms, Edition 2, 27.02.2002*].

### Security

A combination of measures and human and material resources intended to safeguard civil aviation against acts of unlawful interference [*ICAO, DOC 9569, Definitions*].

The Integrated Aeronautical Information Package (IAIP) contains safety-related aeronautical information, which is essential for the daily operations of airlines, pilots, air traffic controllers and other actors in the aeronautical sector.

The eAIP Specification relates to those safety and security issues that are specific to the electronic format. In this context, most stakeholders are concerned with the security and data integrity issues, especially regarding the distribution of aeronautical data over public networks.

Safety and security are not completely separated issues. For example, an attack on a computer or a server can take the server out of service for several hours or days. This is a security aspect, which triggers a safety issue: the eAIP site hosted by that server may become unavailable for some time.

In this example, software and procedures would be put in place to protect the server against this kind of attack or to ensure the continuity of the service by using different servers or routes. On the safety side, risk mitigation of eAIP unavailability could require the storage and availability of a local copy of the eAIP on the client side computer/network. Due to the AIRAC cycle, a local copy will not become obsolete in a few hours or days.

ICAO has recently published "Guidelines for the Use of the Public Internet for Aeronautical Applications" (Doc 9855) and the recommendations made in this eAIP Specification with regard to safety and security are compliant with the minimum requirements specified in these ICAO guidelines.

### 6.1.1. Scope

The eAIP Specification defines an electronic format for the AIP data, which is different from the paper format currently in use. The information content and structure is, however, exactly the same. **The quality management system (ICAO Annex 15 requirement) and the static data procedures currently implemented in AIS are equally applicable to the eAIP production process.** This shall ensure that data issued in the form of an electronic AIP are of the same quality as data issued in the form of a paper AIP.

The way AIP/eAIP data are used for operational needs is subject to specific Air Traffic Services (ATS), Air Traffic Management (ATM), avionics, etc. regulations and is considered outside the scope of the eAIP Specification.

Therefore, the scope of the safety and security considerations included in the eAIP Specification is limited to demonstrating that the data integrity provided by the electronic format is the same or better than that provided by the paper format.

### 6.1.2. Data Integrity

How can data integrity be ensured on the (electronic) path between the eAIP editor and the eAIP user? The answer to this question is not associated with data format, but with data transmission. If the transmission path is safe, the data are safe as well. However, it is known that the Internet, as a public network, is currently not a secure path. In order to have a secure path through an insecure environment, data needs to be enclosed inside a protection layer. This layer can be provided by technologies such as electronic signature and authentication. These technologies even bring an additional benefit: non-repudiation. Once electronically signed, the originator cannot deny signing and issuing the data.

### 6.1.3. Documentation

This chapter and the following one discuss general safety / security aspects and risks associated with publishing an eAIP. Additional documentation is available with the eAIP Extended Toolbox.

Please read the safety-related questions in the Frequently Asked Questions [<http://www.eurocontrol.int/eaip/gallery/content/public/doc/html/faq.html>] (FAQ).

## 6.2. What Kind of Security?

There are three different aspects to information security: Confidentiality, Integrity and Availability.

**Table 6.1. Security Aspects**

Security aspect	When it applies
Confidentiality	when a piece of information must not be read by any unauthorised party
Integrity	when a piece of information must not be tampered with or corrupted
Availability	when a piece of information must be accessible without interruption or delays (H24, typically)

Different technologies exist that usually address one or two of these aspects. Needless to say, it is more difficult (read: costly) to address all of them at the same time. Information system managers need to evaluate these three aspects based on their relative importance in their specific context.

**Confidentiality:** In the AIS domain in general, information is rarely confidential. An exception may be some AIS-related military information. For the remainder of data, it is usually in the interest of the publishing authority that access to AIS data is as open as possible.

**Integrity:** This is a growing concern for the aeronautical community as the integrity of the eAIP has safety implications and therefore needs to be addressed.

**Availability:** In the context of static AIS data, availability is not the primary concern. If an on-line AIP is not available for a few minutes or even for a few hours this should not be a serious issue. Simple solutions, such as local storage mitigate this risk. However, this is obviously not the case with NOTAM, which must be immediately available to those concerned.

An important IT security technique for the AIS domain is electronic signature. An electronic signature not only ensures data integrity, but also guarantees the sender's identity. This means that a recipient can be sure that he received AIS information from the legitimate sender (authentication) and it also means that the sender cannot deny having sent the information (non-repudiation).

When applied to a specific document, an electronic signature ensures that document's integrity to varying levels, depending on the algorithm applied. For example, using the cryptographic hash (aka signature)

function called SHA-1, which is typical in security software, there is a probability of approximately  $1 \times 10^{-25}$  that, given a certain signed eAIP, another file exist with the same signature. It is even more difficult to find two coherent data items with the same hash, which is what a malicious attacker needs. No method have been found so far to find such "useful" collision with SHA-1, while it is "extremely easy" to find one with CRC-32. Nevertheless, another hash function, SHA-256, already exists to further decrease the collision probability to  $1 \times 10^{-39}$ . For the eAIP, SHA-1 is definitely sufficient due to the small life-span of an AMDT.

### 6.3. eAIP Integrity

The use of an electronic signature is a popular method for ensuring eAIP integrity. It will provide users with three levels of protection:

1. AIS data integrity: protection against modification on the path from originator to user;
2. AIS data authentication: certification of the data originator;
3. AIS data non-repudiation: originator cannot deny having signed the data.

#### Note

Non-repudiation normally involves a transaction and applies to both parties, namely originator and recipient. In this document, the recipient side is not addressed but it can be addressed in a very similar way if necessary (for example, through the use of a trusted third party).

#### 6.3.1. Electronic Signature Process

The concept of an electronic signature is very similar to a hand signature:

1. The originator electronically signs a document using a private "key";
2. The originator sends the document to the user with a copy of his public key or certificate;
3. The user opens the document and checks the electronic signature against his copy of the originator's public key or certificate.

The main difference lies in the way of checking an electronic signature's validity. An electronic signature is created using strong encryption technology and is virtually impossible to forge (with current computer technology). With appropriate software, a user can read the electronic signature which contains information about its owner and issuer.

This issuer can be a centrally-managed organisation (called Certificate Authority, or CA), which is trusted by the user community to certify public keys of legitimate owners. For example, a CA would verify thoroughly a user's identity before certifying public keys containing that user's name.

A private key is protected by a password, known only by its owner. If the password were to be disclosed, the owner would revoke his certificate and obtain a new one. The CA can be queried about certificates that have been revoked by their owners.

For more a more detailed explanation, refer to Learning About Cryptography [<http://www.ciphersbyritter.com/LEARNING.HTM>] by Terry Ritter.

## 6.4. Existing Implementation in the AIS community

Electronic signatures (also called security certificates) are common in the Internet community. They are notably used to authenticate Web servers, for example, for Web banking services (when a user connects to a bank's website, they want to be sure that it is indeed their bank and not a fake website that has hijacked their connection). Consequently, several companies offer CA services, for example, Thawte, VeriSign and GlobalSign. They sell public certificates and also CA delegation when an organisation wants to issue certificates directly to its members or employees.

It is also possible for an organisation (or individual) to proclaim itself as a Certificate Authority and begin to issue certificates. The only natural condition is that a community of users exists who trusts it (him/her) as a CA. Open Source (free) software as well as commercial software are available to manage a CA and issue certificates.

These techniques are being used, for example, in the European AIS Database (EAD) project. EAD's system-to-system interface is based on the exchange of XML messages, which are signed by the originator for authentication.

## 6.5. eAIP Security Risks and Mitigation Strategies

### 6.5.1. Introduction

#### 6.5.1.1. Scope

Security risks discussed in this chapter concern the transmission of the eAIP, from an AIS office, to the AIP end-user. The following areas are not covered:

- the creation and revision of an eAIP (covered by the AIS quality assurance process);
- the use of the eAIP (relevant to the end-user internal safety/security policy and covered by specific regulations).

It is assumed that the data contained in an eAIP is non-confidential and that it does not need to be modified during transit. A user must be able to identify if it has been modified between publication and usage.

#### 6.5.1.2. Overview

Publishing an electronic AIP introduces a variety of risks: the publication, transmission and use of the eAIP could take place over several untrusted networks, such as the Internet. To reduce the risk of data tampering and data loss, the use of electronic signatures is recommended.

### 6.5.2. Risk Classification

For each identified risk below, a risk classification table is included. It describes the risk, its likelihood, and its impact on the parties involved. The table is structured as follows:

**Table 6.2.**

Type	Impact	Difficulty
Impersonation	High	Easy

Type: What kind of risk is it?

- Impersonation: the end-user believes the attacker is a legitimate person;
- Data Integrity: the content of the eAIP is modified or destroyed;
- Availability: the eAIP is not available to the end-users.

Impact of risk: What is the impact level to the sending and/or receiving party?

- High: severe impact on safety;
- Medium: some minor impact;
- Low: no impact on safety.

Difficulty: How easy is it to achieve or how likely is it to happen?

- Easy: unskilled hacker / short time frame / very likely;
- Difficult: confirmed hacker / medium time frame / likely;
- Very difficult: well equipped and confirmed hacker / long time frame / unlikely.

### 6.5.3. Risks

#### 6.5.3.1. Introduction

The following risks have been identified:

- Download Server Tampering;
- Download Server Denial of Service;
- Download Server Hijacking;
- Email impersonation;
- Media interception;
- Data corruption.

Please note that this list is not exhaustive.

#### 6.5.3.2. Download Server Tampering

##### 6.5.3.2.1. Risk Classification Table

**Table 6.3.**

Type	Impact	Difficulty
Data Integrity, Availability	High	Easy to Difficult

##### 6.5.3.2.2. Context

This vulnerability applies to eAIP distribution via a file download service, for example a Web server or an File Transfer Protocol (FTP) server. It can concern both secured (by Secure Socket Layer - SSL) and unsecured download servers, accessible on the Internet or any other network.

### 6.5.3.2.3. Description

An AIS office can publish eAIPs on-line, on a server for end-users to download. This server is an obvious target. A successful attacker who, using a flaw in the server software, gains control over the computer on which it is running, may impact:

- **Availability:** He is able to take the server out of operation or to delete eAIPs;
- **Data Integrity:** He can replace an eAIP by another document of his creation, while an end-user believes that he is using an official eAIP.

### 6.5.3.2.4. Mitigating Controls

The possible controls to mitigate the risks stated above are:

1. Proper security practice: Keep the server secure, with the latest security patches applied. Secure the operating system the service is running on;
2. Electronic signature: End-users can check the authenticity of the electronically signed eAIPs they download.

## 6.5.3.3. Download Server Denial of Service

### 6.5.3.3.1. Risk Classification Table

**Table 6.4.**

Type	Impact	Difficulty
Availability	Low to Medium	Easy

### 6.5.3.3.2. Context

This vulnerability applies to eAIP distribution via a file download service, for example a Web server or an FTP server. It can concern both secured (by SSL) and unsecured download servers, accessible on the Internet or any other network.

### 6.5.3.3.3. Description

Hardware and software are more likely to fail against this type of attack. A successful attacker who, using a flaw in the server software, manages to remotely take the server out of operation, may impact availability: eAIPs will not be available until the attack ends or the service is restored.

### 6.5.3.3.4. Mitigating Controls

The possible controls to mitigate the risks stated above are:

1. Proper security practice: Keep the server secure, with the latest security patches applied. Secure the operating system the service is running on;
2. Offer redundant service;
3. For end-users: do not rely solely on remote services, especially through public networks.

### 6.5.3.4. Download Server Hijacking

#### 6.5.3.4.1. Risk Classification Table

**Table 6.5.**

Type	Impact	Difficulty
Impersonation	High	Difficult

#### 6.5.3.4.2. Introduction

This vulnerability applies to eAIP distribution via Web downloads, that may be SSL secured and may be distributed through the Internet.

#### 6.5.3.4.3. Description

This "man in the middle" attack consists in intercepting Web requests sent by end-users to the Web server, and responding to them. The attacker is effectively bypassing the Web server, and providing his own forged Web server instead. This can be done by DNS hijacking or by network path control (i.e. one of the computers traversed by the request is controlled by the attacker).

The type of attack may occur on servers secured by SSL if the end-user does not carefully verify the server's certificate or if his computer has been tampered with without his knowledge so that it silently accepts forged certificates.

#### 6.5.3.4.4. Mitigating Controls

The possible controls to mitigate the risks stated above are:

1. Proper security practice: Securing all computers and devices which are crossed by the Web requests from the end-user's side to the server's side. This includes firewall, routers and proxy servers;
2. Use of SSL: Using an SSL enabled Web server provides confirmation to the end-user that he is connected to the expected Web server, and not to the attacker's. However, the end-user must manually check the authenticity of the SSL certificate. If not, he may be connecting to the attacker's Web server without noticing;
3. Electronic signature: End-users can check authenticity of the electronically signed eAIPs they download.

### 6.5.3.5. Email Impersonation

#### 6.5.3.5.1. Risk Classification Table

**Table 6.6.**

Type	Impact	Difficulty
Impersonation, Data Integrity	High	Easy

#### 6.5.3.5.2. Context

This vulnerability applies to eAIP distribution by email through the Internet or another network.

### 6.5.3.5.3. Description

SMTP, the protocol used for email transmission on the Internet, does not provide authentication of the sending party. This means that anyone can forge the sender's name and email address and, therefore, that the sender's name and address cannot be trusted. To impersonate an AIS office, all the attacker needs to know is the (usually, publicly available) email address and name. He can then simply change his name and email address in his email client software and send out emails which appear to come from the official AIS office, and which contain modified, outdated or erroneous data.

### 6.5.3.5.4. Mitigating Controls

Electronic signature: The sending party signs the email or attached documents. The end-user can then confirm the authenticity and origin of the message, as the attacker cannot forge the electronic signature.

### 6.5.3.6. Media Impersonation

#### 6.5.3.6.1. Risk Classification Table

**Table 6.7.**

Type	Impact	Difficulty
Impersonation, Data Integrity	High	Very difficult

#### 6.5.3.6.2. Context

This vulnerability applies to eAIP distribution via CD-ROM, DVD, hard disk or any other digital transmission which requires physical transport.

#### 6.5.3.6.3. Description

A determined attacker may arrange for the interception of one or more eAIPs containing eAIP digital media. He may replace these media by others containing a modified or outdated eAIP.

#### 6.5.3.6.4. Mitigating Controls

Electronic signature: An end-user can check the authenticity and origin of the eAIPs he receives by validating the electronic signature associated with it.

### 6.5.3.7. Data Corruption

#### 6.5.3.7.1. Risk Classification Table

**Table 6.8.**

Type	Impact	Difficulty
Data Integrity	High	Easy

#### 6.5.3.7.2. Context

This vulnerability applies to all digital distribution channels of the eAIP.

### 6.5.3.7.3. Description

The integrity of the eAIP is not guaranteed: transport and media failures (a hard disk failure, CD-ROM corruption or interrupted download) can leave the user with an incomplete or corrupt eAIP.

This corruption can be accidental or intentional (i.e. sabotage).

### 6.5.3.7.4. Mitigating Controls

Electronic signature: An end-user can check the validity of a file using the electronic signature. Indeed, the signature contains integrity information regarding the signed file. Data corruption is similar to data tampering in the sense that the file is modified. As such, it will not match its signature.

## 6.5.4. Proposed Mitigation

### 6.5.4.1. Proposed Solution

The risk analysis above shows that **the use of electronic signatures** can reduce the risks associated with the publication and transmission of the electronic AIP.

The use of electronic signature in conjunction with the eAIP has the following effects:

- The end-user can certify the **authenticity of the information**: certify that the eAIP originates from the correct authority;
- The end-user can guarantee the **integrity of the data**: certify that the received eAIP is complete, not corrupt and unmodified since its publication by the AIS office.

In short, this solution requires the necessary environment to be set-up first:

1. The AIS office sets up a signing environment;
2. The AIS office provides each end-user with the signing certificate or public key using a different channel than the one used for transmitting the eAIP. The end-user checks with the AIS office for authenticity;
3. The end-user acquires the appropriate software to verify the signature.

For each publication of an eAIP:

1. The AIS office signs the published eAIP. If several eAIPs are provided, each is signed individually;
2. The eAIPs are distributed together with their signatures;
3. The end-user receives the eAIP and checks the signature.

### 6.5.4.2. Limitations

Introducing cryptography in a document work-flow solves some security problems, as seen above. However, it also introduces other issues, such as:

#### 6.5.4.2.1. Overconfidence

Once using cryptography, it is easy for the producers and end-users to believe that ultimate security has been achieved. This is not the case. Cryptography is only a tool which can be used to increase security.

It is redundant without proper security practices (e.g. strong password policy, efficient physical security, etc.). The secure state of mind is often described as "healthy paranoia".

#### **6.5.4.2.2. Key Theft**

Public/private key cryptography (both Pretty Good Privacy (PGP) and x509) relies on the secrecy of the private key. The theft of the private key (and the knowledge of its associated password) is dramatic: the attacker now has the ability to impersonate the publisher in the eyes of the end-users. The aim is to create a security environment where it becomes possible to detect such an event, and have appropriate procedures to revoke and change the incriminated keys and associated certificates.

#### **6.5.4.2.3. Look-alike Certificates**

It is easy to create forged certificates and PGP keys which bear the same contact and organisation information as the legitimate one. If an attacker manages to convince an end-user to trust such a look-alike certificate, he can avoid other more difficult attack scenarios. Therefore, it is vital to implement a verification procedure: when the end-user receives any certificate, he must check its validity with the originating party using an alternative communication channel (i.e., not the channel used to distribute the certificate). Note that if the attacker manages to convince the end-user to send him an email or phone him on his "direct line", he has effectively bypassed the verification procedure. So the end-user must use trusted contact information for this verification procedure.

#### **6.5.4.3. Conclusion**

The use of electronic signatures ensures that the data integrity of the eAIP product can be ensured with relatively little effort, as with the paper document. In addition, authenticity and non-repudiation may be ensured, which is not the case with the paper document. Therefore, it is recommended that electronic signatures are used for all types of eAIP distribution to end-users.

# Chapter 7. Screen and Paper Presentation

## 7.1. Introduction

Presenting the information on a computer screen and presenting the same information on paper have different constraints. HTML is a Web technology, developed specifically to display information on computer screens. The on-screen (HTML) presentation part of the eAIP Specification is based on the conclusions of a User Requirements and Usability Guidelines [usability\_study.pdf] Study. The study included a validation workshop with a group of real users.

The eAIP may be presented on different media, such as paper and on-screen. The concept of fixed length pages does not apply to the computer screen. For electronic presentation it is much more natural to group the information in chapters, per subject. Also, when expressed in pixels, a good computer screen has half the size of an A4 paper. For the text to remain legible, the length of text in a table cell has to be reduced by at least one third when compared to A4 paper.

## 7.2. User Requirements

The requirements identified through this study have been classified as ‘inherited’ requirements or ‘functional’ requirements:

- inherited requirements are those derived from the ICAO SARPs specified in Annex 15, such as:
  - the eAIP structure and layout shall adhere to the requirements for presentation as set out by ICAO;
  - the update cycle of the eAIP shall adhere to the AIRAC cycle requirements;
  - all amendments (alterations, additions and deletions) made to the eAIP in the last AIRAC cycle shall be indicated.
- functional requirements are those deriving from the transition from paper-based to electronic media, such as:
  - the Table of Contents is the main navigation tool in the eAIP document; it shall be simple, fast and effective to use;
  - where Amendments modify text, there shall be some provision for comparing the previous and modified versions;
  - ‘live access’ versions of the eAIP (e.g. websites) shall incorporate the core AIP (GEN, ENR, AD) and all accompanying documents (AMDTs, SUPs, AICs and NOTAMs);
  - ‘disseminated’ versions (for example, CDs) shall exclude NOTAMs, but shall incorporate links to NOTAMs on a live website;
  - the date on which each section became effective shall be verified and the source of the information shall, if relevant, be verified;
  - cross-references within the body of the text (e.g. ‘See section ...’) shall be implemented as links;
  - charts in the eAIP shall be scalable, zoom-able and display configurable content.

The full results of the study are available in the User Requirements and Usability Guidelines [usability\_study.pdf] document. Not all requirements identified by the study are supported by the current eAIP browsing stylesheets. In particular, requirements that refer to advanced search facilities are not supported yet (for example: "*the eAIP must have a facility for searching for all instances of a given word in the body of the AIP, and accompanying documents. The search results will have links into the appropriate sections of the body of the document*").

However, such requirements do not affect the eAIP DTD structure but do affect the functionality offered by the stylesheets. It is expected that such requirements could be fulfilled by integrating the eAIP into an XML/HTML document management system.

## 7.3. HTML Specification

This section includes the HTML specification for the presentation and functionality of the eAIP.

### 7.3.1. General

Headings shall be in black text unless otherwise stated.

eAIP/HTML/0001

Unlinked text shall be black.

eAIP/HTML/0002

A link shall have blue text when the cursor is not placed over it and it is not currently selected.

eAIP/HTML/0003

A link shall be displayed in red text when the cursor is placed over it.

eAIP/HTML/0004

A link shall be underlined when the cursor is placed over it.

eAIP/HTML/0005

A link shall remain red whilst it is currently selected and its content displayed in the right-hand pane.

eAIP/HTML/0006

A link shall remain underlined whilst it is currently selected and its content displayed in the right-hand pane.

eAIP/HTML/0007

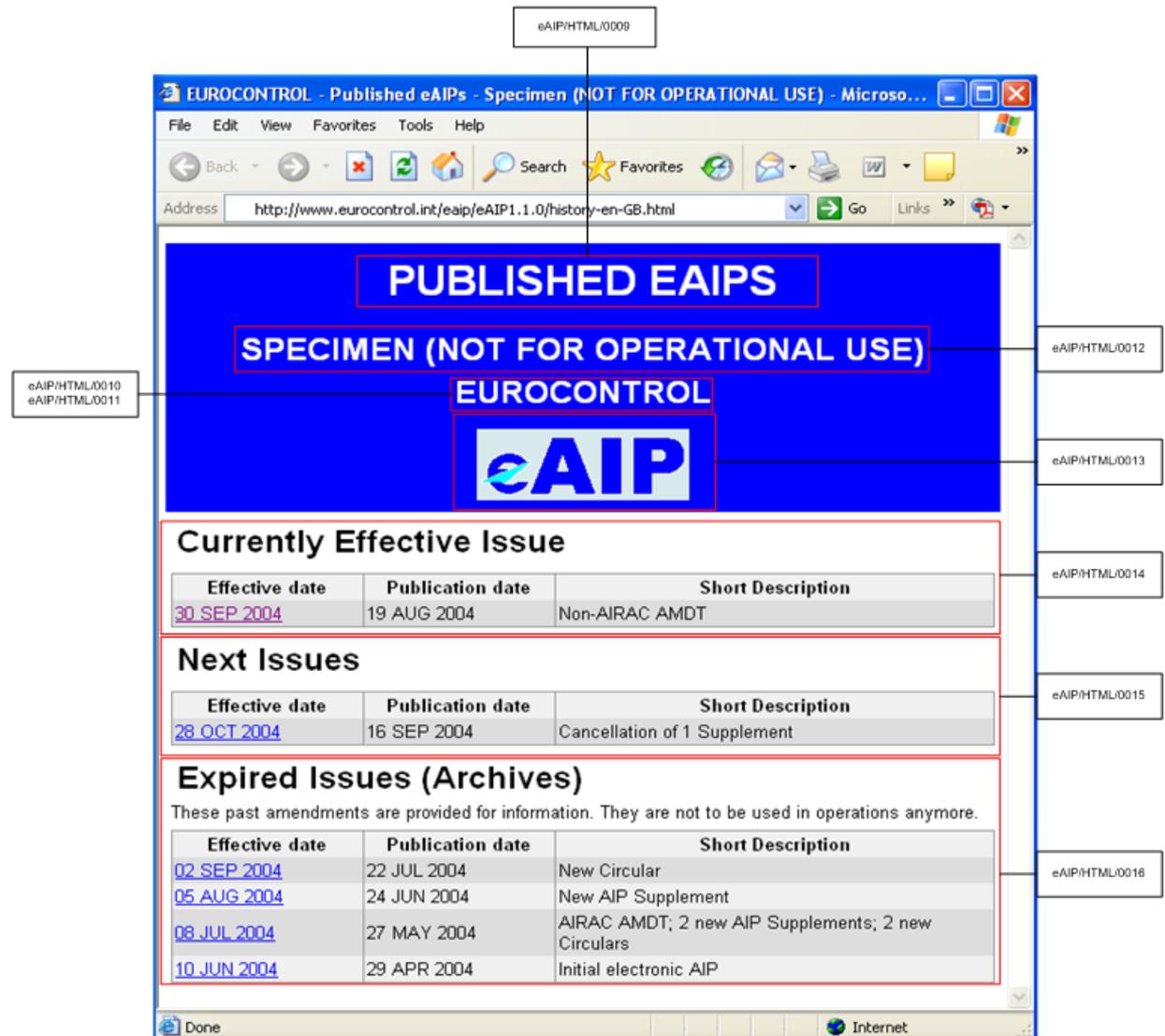
Dates shall be displayed in the format DD MMM YYYY.

eAIP/HTML/0008

## 7.3.2. eAIP History Page

### 7.3.2.1. General

Figure 7.1. eAIP History Page



The page shall have the title 'Published eAIPs'.  
eAIP/HTML/0009

The page shall indicate which State is publishing the eAIP.  
eAIP/HTML/0010

The page may include the logo of the State.  
eAIP/HTML/0011

The page shall advise the user to consult NOTAM for the latest information.  
eAIP/HTML/0012

The page shall provide the name of the organisation responsible for publishing the eAIP.  
eAIP/HTML/0013

The cover page shall include the following sections:

A currently effective eAIP section;  
eAIP/HTML/0014

A Next Issues section;  
eAIP/HTML/0015

An Expired Issues (Archives) section.  
eAIP/HTML/0016

### 7.3.2.2. Currently Effective Section

**Figure 7.2. Currently Effective eAIP**

#### Currently Effective Issue

Effective date	Publication date	Short Description
<a href="#">30 SEP 2004</a>	19 AUG 2004	Non-AIRAC AMDT

eAIP/HTML/0017 eAIP/HTML/0020	eAIP/HTML/0018	eAIP/HTML/0019
----------------------------------	----------------	----------------

The Currently Effective eAIP section should contain a table with the following columns:

Effective Date;  
eAIP/HTML/0017

Publication Date;  
eAIP/HTML/0018

Short Description.  
eAIP/HTML/0019

The date in the Effective Date section of the table shall be a link.  
eAIP/HTML/0020

The link shall be to the eAIP with the Effective Date in the table.  
eAIP/HTML/0021

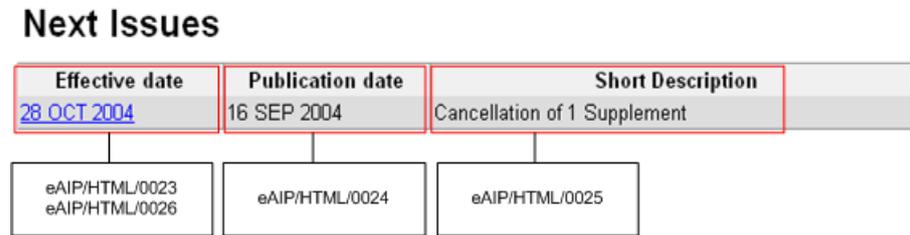
When clicked, the eAIP with the Effective Date shall open in the active window.  
eAIP/HTML/0022

**Note**

The link to the eAIP with the effective date in the table shall not open a new window but open the eAIP in the currently open and active window.

### 7.3.2.3. Next Issues Section

Figure 7.3. eAIP Next Issues



The Next Issue section should contain a table with the following columns:

Effective Date;  
eAIP/HTML/0023

Publication Date;  
eAIP/HTML/0024

Short Description.  
eAIP/HTML/0025

The date in the Effective Date section of the table shall be a link.  
eAIP/HTML/0026

The link shall be to the eAIP with the Effective Date in the table.  
eAIP/HTML/0027

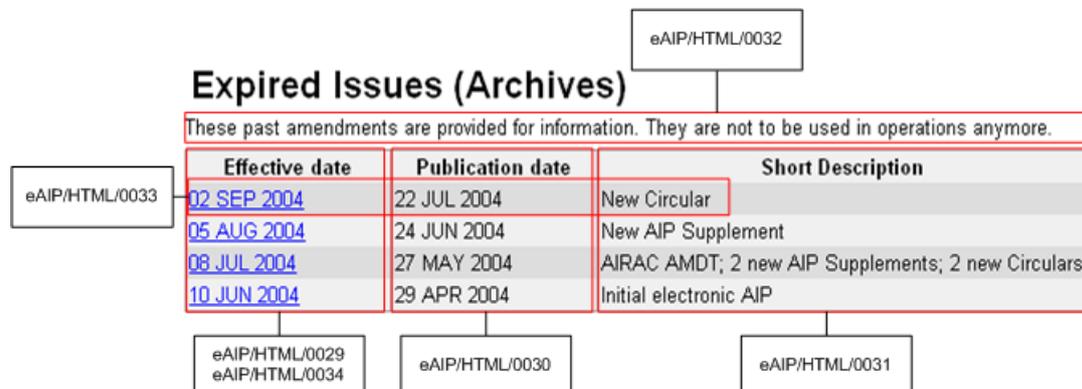
When clicked, the eAIP with the Effective Date shall open in the active window.  
eAIP/HTML/0028

**Note**

The link to the eAIP with the effective date in the table shall not open a new window but open the eAIP in the currently open and active window.

### 7.3.2.4. Expired Issues (Archives) Section

Figure 7.4. eAIP Expired Issues (Archives)



The Expired Issues (Archives) section should contain a table with the following columns:

Effective Date;  
eAIP/HTML/0029

Publication Date;  
eAIP/HTML/0030

Short Description.  
eAIP/HTML/0031

The Expired Issues (Archives) section shall contain a warning that these past amendments are provided for information purposes and should not be used operationally.

eAIP/HTML/0032

The Expired Issue table shall contain a record for each expired issue.

eAIP/HTML/0033

The date in the Effective Date section of the table shall be a link.

eAIP/HTML/0034

The link shall be to the eAIP with the Effective Date in the table.

eAIP/HTML/0035

When clicked, the eAIP with the Effective Date shall open in the active window.

eAIP/HTML/0036

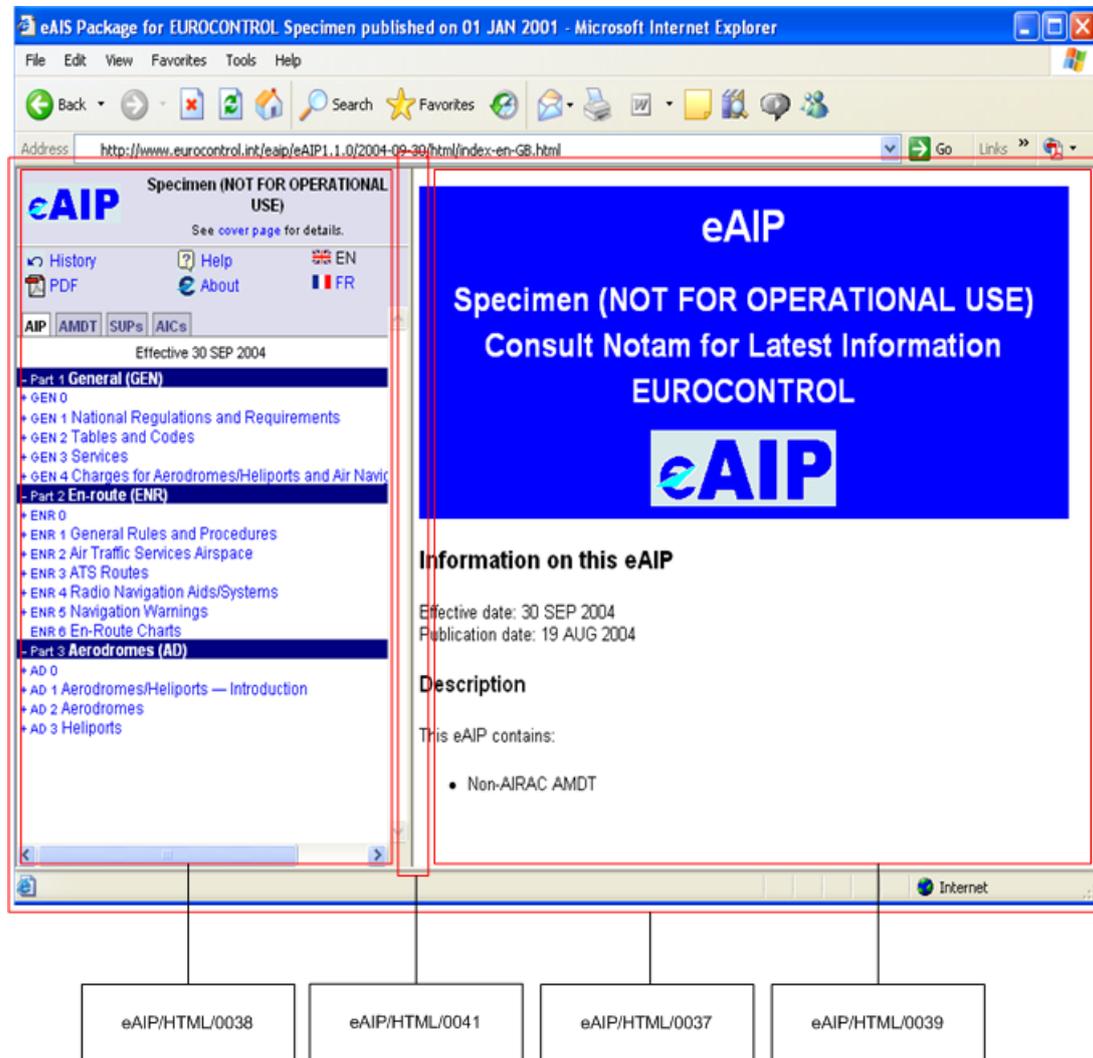
**Note**

The link to the eAIP with the effective date in the table shall not open a new window but open the eAIP in the currently open and active window.

### 7.3.3. eAIP Cover Page and Menu

#### 7.3.3.1. General

**Figure 7.5. eAIP Cover Page and Table of Contents**



The eAIP shall be displayed and navigated in a window consisting of two panes.

eAIP/HTML/0037

The left-hand pane shall contain the menu for the eAIP.

eAIP/HTML/0038

The right-hand side shall contain the cover page for the eAIP when the eAIP is initially opened.

eAIP/HTML/0039

The right-hand side shall contain the relevant content of the eAIP when selected by the user in the left-hand pane.

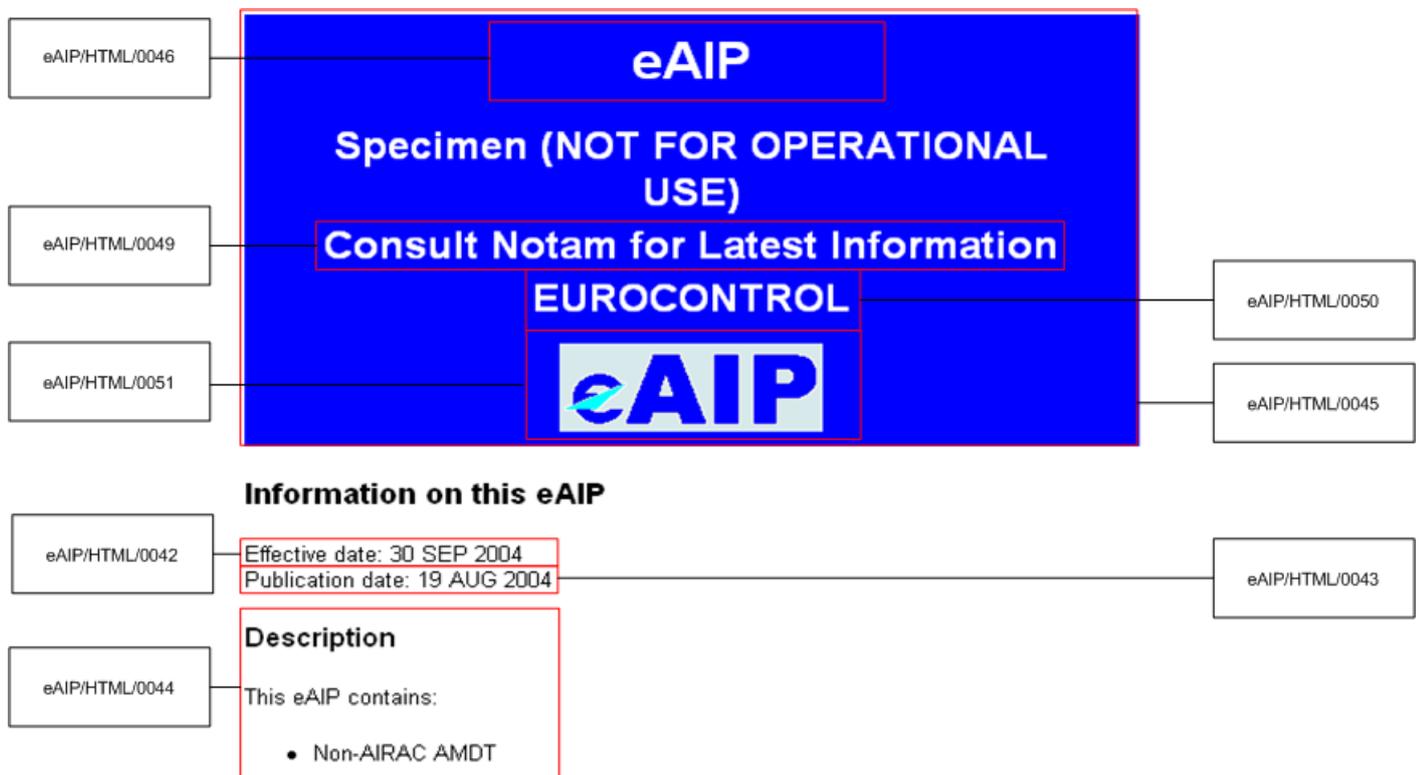
eAIP/HTML/0040

The user should be able to change the proportion of the window used by each pane by moving the scroll bar.

eAIP/HTML/0041

### 7.3.3.2. Cover Page

Figure 7.6. Cover Page



When an eAIP is first opened, the right hand pane (cover page) shall display the following information about the eAIP:

Effective Date;  
eAIP/HTML/0042

Publication Date;  
eAIP/HTML/0043

Description.  
eAIP/HTML/0044

The page shall have a header.  
eAIP/HTML/0045

The header shall have a title indicating that it is an eAIP.  
eAIP/HTML/0046

The header shall indicate for which State the eAIP is.  
eAIP/HTML/0047

The header may contain the logo of the State.  
eAIP/HTML/0048

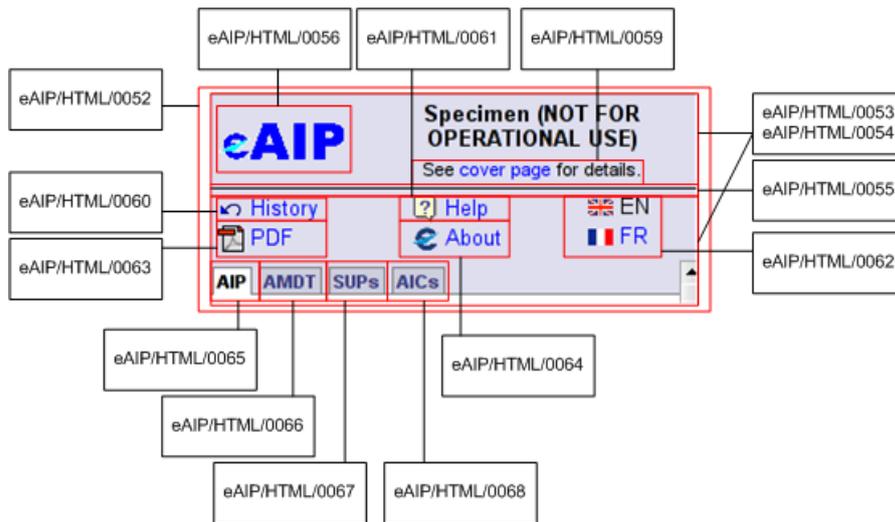
The header shall contain a warning that NOTAM should be consulted for the latest information.  
eAIP/HTML/0049

The header shall contain the name of the publishing organisation.  
eAIP/HTML/0050

The header may contain the logo of the publishing organisation.  
eAIP/HTML/0051

### 7.3.3.3. Menu

**Figure 7.7. Menu**



The menu shall be situated above the table of contents for the AIP, AMDTS, SUPs and AICs.  
eAIP/HTML/0052

The menu shall be divided into two panels.  
eAIP/HTML/0053

The background colour of the panels shall be grey.  
eAIP/HTML/0054

The panels shall be divided by a line.  
eAIP/HTML/0055

The top panel may contain the logo of the publishing organisation or the national flag of the State.  
eAIP/HTML/0056

The top panel shall contain the name of the State.  
eAIP/HTML/0057

The name of the State shall be in black text.  
eAIP/HTML/0058

The top panel shall contain a link to the eAIP cover page.  
eAIP/HTML/0059

The bottom panel shall contain the following links:

A link to the eAIP history page;  
eAIP/HTML/0060

A link to a help facility;  
eAIP/HTML/0061

A link for each other language the eAIP is provided in;  
eAIP/HTML/0062

A link to the current section or document in PDF format;  
eAIP/HTML/0063

A link to the website of the publishing organisation.  
eAIP/HTML/0064

The menu shall contain the following tabbed pages:

AIP - The AIP Table of Contents;  
eAIP/HTML/0065

AMDT - The list of changes;  
eAIP/HTML/0066

SUPs - The list of AIP Supplements;  
eAIP/HTML/0067

AICs - The list of Circulars;  
eAIP/HTML/0068

#### **7.3.3.3.1. eAIP History Link**

The link to the eAIP history shall be titled 'History'.  
eAIP/HTML/0069

The link to the eAIP History shall also display an icon.  
eAIP/HTML/0070

Clicking on 'History' shall open the eAIP History window in the active window.  
eAIP/HTML/0071

Clicking on the History logo shall open the eAIP History window in the active window.  
eAIP/HTML/0072

#### **Note**

Please see the History chapter for more details regarding the functionality of the eAIP History page.

#### **7.3.3.3.2. Help Link**

The link to the eAIP help shall be titled 'Help'.  
eAIP/HTML/0073

The link to the eAIP help shall also display a logo/image/icon.  
eAIP/HTML/0074

Clicking on 'Help' shall open the eAIP Help window in the right-hand pane of the page.  
eAIP/HTML/0075

Clicking on the Help logo shall open the eAIP Help window in the right-hand pane of the page.  
eAIP/HTML/0076

#### **Note**

Please see the Help chapter for more details regarding the functionality of the eAIP Help page.

#### **7.3.3.3.3. Language Link**

The link to the eAIP in a particular language shall have the abbreviated ISO language code (ISO-639) as the title.

eAIP/HTML/0077

The language code shall be displayed in dark blue for the currently selected language.

eAIP/HTML/0078

The language code shall be displayed in light blue for the unselected languages.

eAIP/HTML/0079

Clicking on the language code shall open the currently selected section in that language, in the right-hand pane of the window.

eAIP/HTML/0080

Clicking on the flag shall open the currently selected section in that language, in the right-hand pane of the window.

eAIP/HTML/0081

The link to the eAIP in another language shall also display the flag of the language/country.

eAIP/HTML/0082

#### **7.3.3.3.4. PDF Link**

The link to the current section or document in PDF format shall have 'PDF' as the title.

eAIP/HTML/0083

Clicking on 'PDF' shall open the current section or document in the right-hand pane of the page in PDF format.

eAIP/HTML/0084

Clicking on the Adobe logo shall open the current section or document in the right-hand pane of the page in PDF format.

eAIP/HTML/0085

The link to the current section or document in PDF shall also display the Adobe logo.

eAIP/HTML/0086

#### **7.3.3.3.5. Website Link**

The link to the website of the publishing organisation shall have the name of that organisation.

eAIP/HTML/0087

Clicking on the name of the organisation shall open the organisation's website in the right-hand pane of the page.

eAIP/HTML/0088

Clicking on the organisation's logo shall open the organisation's website in the right-hand pane of the page.

eAIP/HTML/0089

#### **7.3.3.3.6. AIP Tabbed Page**

The title of the tabbed page shall be 'AIP'.

eAIP/HTML/0090

The title shall be a link to the AIP table of contents.

eAIP/HTML/0091

Clicking on the link shall open the AIP table of contents in the panel below.

eAIP/HTML/0092

The AIP tab shall have a grey background when it is unselected.

eAIP/HTML/0093

When the AIP tabbed page is selected the background colour shall turn white.

eAIP/HTML/0094

The 'AIP' text shall be black and in bold font when the page is selected.

eAIP/HTML/0095

The 'AIP' text shall be in dark blue and in bold font when the page is unselected and has not previously been opened in the current session.

eAIP/HTML/0096

The 'AIP' text shall be in light blue and bold font when the page is unselected and has been previously opened in the current session.

eAIP/HTML/0097

When the AIP tab is selected it shall have the appearance of being on top of the other pages.

eAIP/HTML/0098

#### **7.3.3.3.7. AMDT Tabbed Page**

The title of the tabbed page shall be 'AMDT'.

eAIP/HTML/0099

The title shall be a link to the AMDT table of contents.

eAIP/HTML/0101

Clicking on the AMDT link shall open the AMDT table of contents in the panel below.

eAIP/HTML/0102

The AMDT tab shall have a grey background when it is unselected.

eAIP/HTML/0103

When the AMDT tabbed page is selected the background colour shall turn white.

eAIP/HTML/0104

The 'AMDT' text shall be black and in bold font when the page is selected.

eAIP/HTML/0105

The 'AMDT' text shall be in dark blue and in bold font when the page is unselected and has not previously been opened in the current session.

eAIP/HTML/0106

The 'AMDT' text shall be in light blue and bold font when the page is unselected and has been previously opened in the current session.

eAIP/HTML/0107

When the AMDT tab is selected it shall have the appearance of being on top of the other pages.

eAIP/HTML/0108

### **7.3.3.3.8. SUPs Tabbed Page**

The title of the tabbed page shall be 'SUPs'.

eAIP/HTML/0109

The title shall be a link to the SUPs table of contents.

eAIP/HTML/0110

Clicking on the SUPs tabbed page shall open the SUPs table of contents in the panel below.

eAIP/HTML/0111

The SUPs tabbed page shall have a grey background when it is unselected.

eAIP/HTML/0112

When the SUPs tabbed page is selected the background colour shall turn white.

eAIP/HTML/0113

The 'SUPs' text shall be black and in bold font when the page is selected.

eAIP/HTML/0114

The 'SUPs' text shall be in dark blue and in bold font when the page is unselected and has not previously been opened in the current session.

eAIP/HTML/0115

The 'SUPs' text shall be in light blue and bold font when the page is unselected and has been previously opened in the current session.

eAIP/HTML/0116

When the SUPs tab is selected it shall have the appearance of being on top of the other pages.

eAIP/HTML/0117

### **7.3.3.3.9. AICs Tabbed Page**

The title of the tabbed page shall be 'AICs'.

eAIP/HTML/0118

The title shall be a link to the AICs table of contents.

eAIP/HTML/0119

Clicking on the AICs tabbed page shall open the AICs table of contents in the panel below.

eAIP/HTML/0120

The AICs tabbed page shall have a grey background when it is unselected.

eAIP/HTML/0121

When the AICs tabbed page is selected the background colour shall turn white.  
eAIP/HTML/0122

The 'AICs' text shall be black and in bold font when the page is selected.  
eAIP/HTML/0123

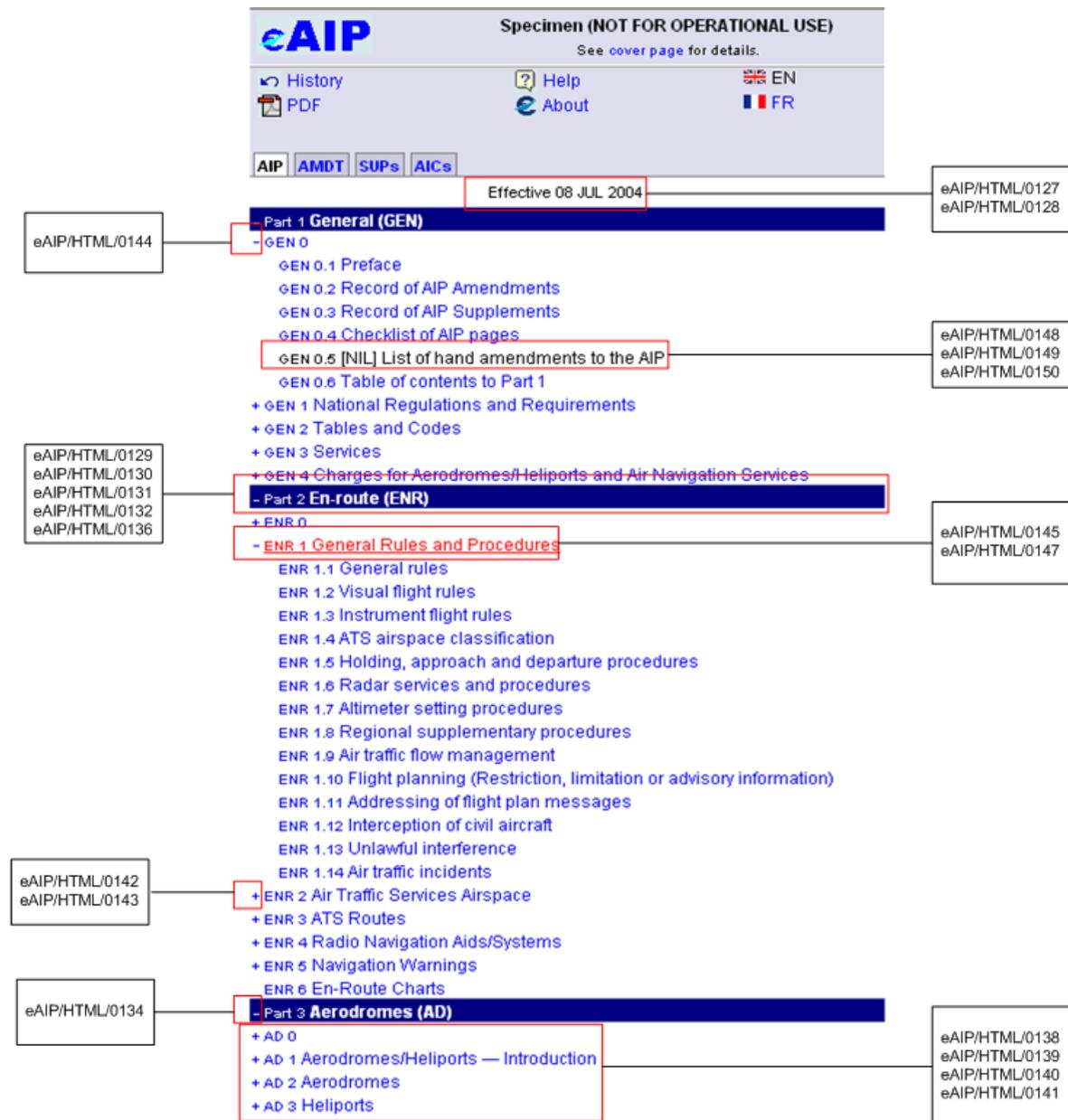
The 'AICs' text shall be in dark blue and in bold font when the page is unselected and has not previously been opened in the current session.  
eAIP/HTML/0124

The 'AICs' text shall be in light blue and bold font when the page is unselected and has been previously opened in the current session.  
eAIP/HTML/0125

When the AICs tab is selected it shall have the appearance of being on top of the other pages.  
eAIP/HTML/0126

### 7.3.3.4. AIP Table of Contents

Figure 7.8. AIP Table of Contents



The AIP table of contents shall indicate the effective date of the AIP.  
eAIP/HTML/0127

The effective date shall be in black.  
eAIP/HTML/0128

The AIP table of contents shall highlight the three parts of the AIP by a blue header.  
eAIP/HTML/0129

The title of the AIP part shall be in white text.  
eAIP/HTML/0130

The title shall contain the part number.

eAIP/HTML/0131

The title shall also contain the title of the part, as given in the eAIP itself, in bold text.

eAIP/HTML/0132

By default, the part shall be expanded when the table of contents is opened.

eAIP/HTML/0133

The part title shall have a '-' next to it when expanded to allow for the table of contents tree to be collapsed.

eAIP/HTML/0134

The part title shall have a '+' next to it when collapsed to allow for the table of contents tree to be expanded.

eAIP/HTML/0135

The title of the part shall be a link.

eAIP/HTML/0136

Clicking on the part link shall open section 0 of the relevant part in the right-hand pane.

eAIP/HTML/0137

For each part, the table of contents shall list each chapter in the part.

eAIP/HTML/0138

The title of the chapter shall be preceded by the name of the part.

eAIP/HTML/0139

The number of the chapter shall be included in the title.

eAIP/HTML/0140

The title of the chapter shall include a description of its contents, as laid out by ICAO.

eAIP/HTML/0141

By default, the chapters shall be collapsed in the table of contents tree.

eAIP/HTML/0142

The chapter title shall have a '+' next to it when collapsed to allow for the table of contents tree to be expanded.

eAIP/HTML/0143

The chapter title shall have a '-' next to it when expanded to allow for the table of contents tree to be collapsed.

eAIP/HTML/0144

The title of the chapter shall be a link.

eAIP/HTML/0145

Clicking on the chapter link shall open the chapter in the right-hand pane.

eAIP/HTML/0146

Clicking on a collapsed part or chapter shall expand the part, or chapter.

eAIP/HTML/0147

A NIL section shall not be a link.  
eAIP/HTML/0148

The title of the NIL section shall be preceded by '[NIL]'.  
eAIP/HTML/0149

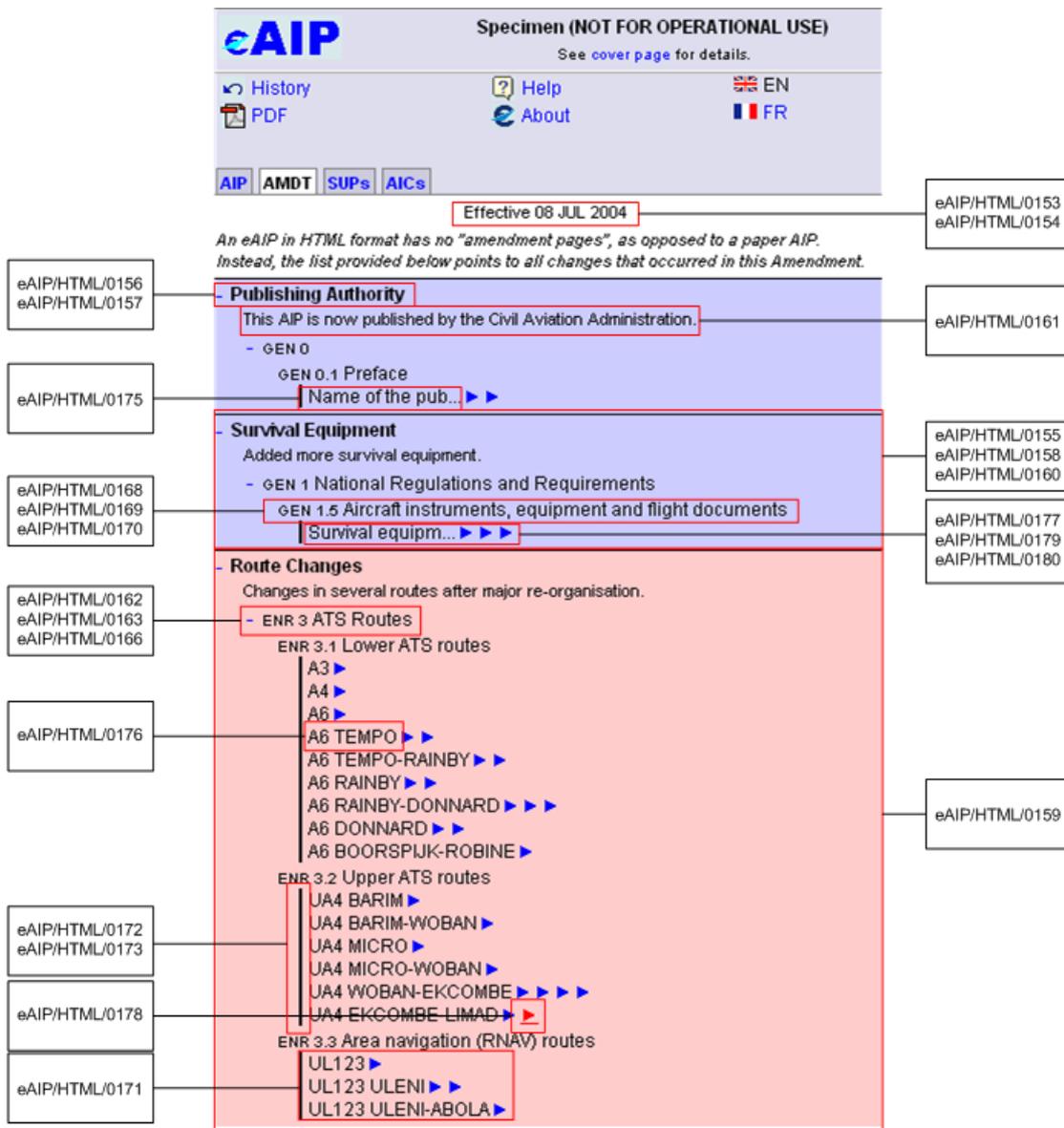
The title of the NIL section shall be black.  
eAIP/HTML/0150

Electronic NIL sections shall link to a page indicating that the page is intentionally blank for electronic formats.  
eAIP/HTML/0151

The PDF format of this section shall be available from the PDF link on the main menu, as for all other sections.  
eAIP/HTML/0152

### 7.3.3.5. AMDTs Table of Contents

Figure 7.9. AMDT Table of Contents



The AMDTs table of contents shall indicate the effective date of the AIP Amendment.

eAIP/HTML/0153

The date shall be in black text.

eAIP/HTML/0154

The changes forming an amendment shall be grouped.

eAIP/HTML/0155

For each group, a group title shall be displayed.

eAIP/HTML/0156

The title of the group shall be in black.

eAIP/HTML/0157

If the amendment is an AIRAC amendment then the background colour for the group shall be blue.  
eAIP/HTML/0158

If the amendment is a non-AIRAC amendment then the background colour for the group shall be pink.  
eAIP/HTML/0159

The AMDTs table of contents shall contain the following information:

A list of the groups where amendments are located;  
eAIP/HTML/0160

A description for each group of AIP Amendments;  
eAIP/HTML/0161

The chapter of the AIP where the amendment(s) has been made for each group of AIP Amendments;  
eAIP/HTML/0162

The title of the affected chapter for each group of AIP Amendments.  
eAIP/HTML/0163

The chapter shall have a '+' next to it when collapsed to allow for the table of contents tree to be expanded.  
eAIP/HTML/0164

The chapter shall be expanded by clicking on the chapter title.  
eAIP/HTML/0165

The chapter shall have a '-' next to it when expanded to allow for the table of contents tree to be collapsed.  
eAIP/HTML/0166

The chapter shall be collapsed by clicking on the chapter title.  
eAIP/HTML/0167

When the chapter is expanded the sections of the chapter containing amendments shall be listed.  
eAIP/HTML/0168

The section listing shall include the section number.  
eAIP/HTML/0169

The section listing shall include the section title.  
eAIP/HTML/0170

For each section, the amendments shall be listed.  
eAIP/HTML/0171

A solid black bar shall be used to indicate that amendments are all part of the same section.  
eAIP/HTML/0172

The bar shall be located to the left of the amendment titles.  
eAIP/HTML/0173

The amendments shall be grouped by the nearest subsection title.  
eAIP/HTML/0174

The nearest subsection title shall be listed.  
eAIP/HTML/0175

For each group of amendments to a route table, the route segment or significant point shall be provided.  
 eAIP/HTML/0176

Each individual change in an amendment group shall be indicated by a blue triangle.  
 eAIP/HTML/0177

The triangle shall be a link to the change.  
 eAIP/HTML/0178

The amendment group shall have a triangle for each change in the group.  
 eAIP/HTML/0179

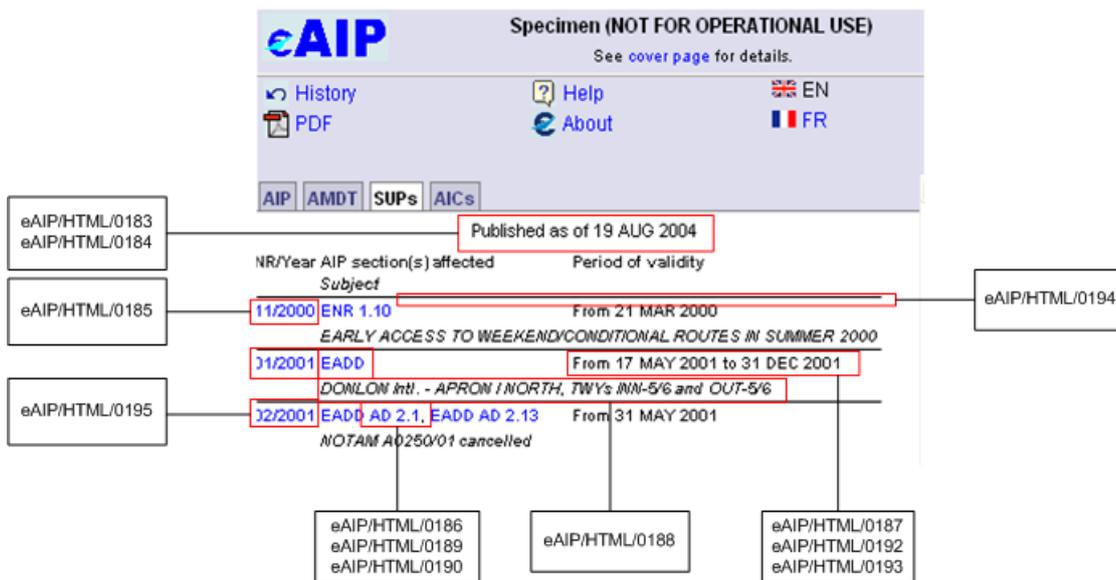
The triangles shall be located next to the amendment group title.  
 eAIP/HTML/0180

When a change is selected, the change shall be displayed in the right-hand pane.  
 eAIP/HTML/0181

The change shall be displayed at the top of the right-hand pane.  
 eAIP/HTML/0182

### 7.3.3.6. SUPs Table of Contents

Figure 7.10. SUPs Table of Contents



The SUPs table of contents shall indicate the date the page was published.  
 eAIP/HTML/0183

The date shall be in black text.  
 eAIP/HTML/0184

The SUPs table of contents shall contain the following information for each AIP Supplement:

The Number/Year;  
 eAIP/HTML/0185

The AIP section affected;  
eAIP/HTML/0186

The period of validity;  
eAIP/HTML/0187

The subject.  
eAIP/HTML/0188

The AIP section affected shall be indicated by the part plus the section.  
eAIP/HTML/0189

The AIP section affected shall be a link to the actual section in the eAIP.  
eAIP/HTML/0190

When the AIP section affected link is clicked, the eAIP section shall open in the right-hand pane of the active window.  
eAIP/HTML/0191

The period of validity shall indicate from which date the AIP Supplement is valid.  
eAIP/HTML/0192

The period of validity may indicate a date for the end of the validity period.  
eAIP/HTML/0193

AIP Supplements should be clearly separated in the list.  
eAIP/HTML/0194

The Number/Year of the AIP Supplement shall be a link.  
eAIP/HTML/0195

When the AIP Supplement link is clicked, the AIP supplement shall open in the right-hand pane of the active window.  
eAIP/HTML/0196

There should be no link in either direction between an AIP Supplement and an eAIP.  
eAIP/HTML/0197

There may be a link from the list of AIP Supplements to the AIP.  
eAIP/HTML/0198

**Note**

Where eAIP/HTML/0197 and eAIP/HTML/0198 are not implemented, the links between AIP Supplements and the AIP sections affected should be controlled and updated so that a Supplement published in the past always links to the latest published (or effective) AIP issue. If this is not possible, the user should, as a minimum, be warned that the link may lead to an expired AIP issue.

### 7.3.3.7. AICs Table of Contents

Figure 7.11. AICs Table of Contents

NR/Year	Published on	Subject	Series
112/1998	06 OCT 1998	RE-ORGANISATION OF AREA CONTROL CLACTON SECTOR AIRSPACE, INCLUDING THE INTRODUCTION OF NEW TERMINAL CONTROL SECTORS. SABER AND DAGGA	A
06/2000	15 FEB 2000	REDUCED VERTICAL SEPARATION MINIMUM (RVSM) IN EUR RVSM AIRSPACE BETWEEN FLIGHT LEVEL 290 AND FLIGHT LEVEL 410 INCLUSIVE	
07/1996	29 FEB 1996	INTRODUCTION OF THE FLEXIBLE USE OF AIRSPACE CONCEPT IN THE ECAC AREA	A

The AICs table of contents shall indicate the date the page was published.  
eAIP/HTML/0199

The date shall be in black text.  
eAIP/HTML/0200

The AICs table of contents shall contain the following information for each AIC:

The number/year;  
eAIP/HTML/0201

The date of publication;  
eAIP/HTML/0202

The series;  
eAIP/HTML/0203

The subject.  
eAIP/HTML/0204

Each AIC should be clearly separated in the list.  
eAIP/HTML/0205

The number/year of the AIC shall be a link.  
eAIP/HTML/0206

When the AIC link is clicked, the AIC shall open in the right-hand pane of the active window.  
eAIP/HTML/0207

### 7.3.4. Help File

The Help page shall contain information regarding the following:

The eAIP

eAIP/HTML/0208

The system requirements

eAIP/HTML/0209

How to use the eAIP:

The menu;

eAIP/HTML/0210

The AIP tab;

eAIP/HTML/0211

The AMDT tab;

eAIP/HTML/0212

The SUPs tab;

eAIP/HTML/0213

The AICs tab;

eAIP/HTML/0214

Amendments;

eAIP/HTML/0215

SVG charts and graphics;

eAIP/HTML/0216

Other features of the eAIP.

eAIP/HTML/0217

The Help System may contain a frequently asked questions section.

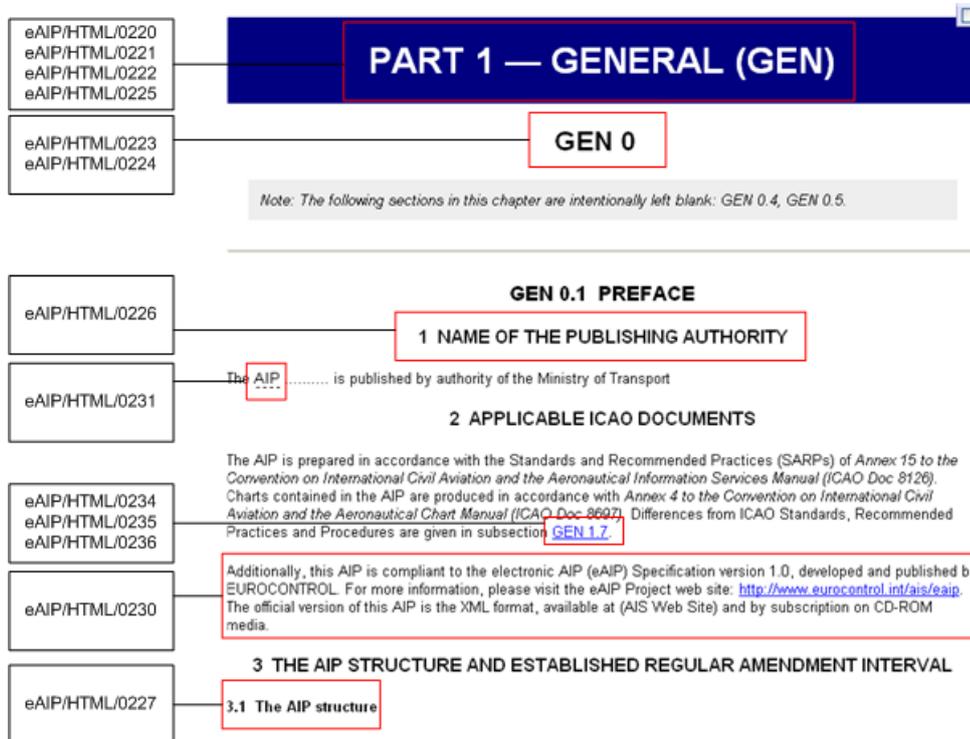
eAIP/HTML/0218

The Help System may contain additional information regarded as useful for the consultation and use of the eAIP.

eAIP/HTML/0219

## 7.3.5. AIP Content

Figure 7.12. AIP Content



The title of the part or section selected shall be displayed at the top of the right-hand pane of the window.  
eAIP/HTML/0220

The part title shall be displayed in a blue header.  
eAIP/HTML/0221

The text of the part title shall be white.  
eAIP/HTML/0222

The titles of sections shall be black.  
eAIP/HTML/0223

The titles of parts and sections shall be in upper case text.  
eAIP/HTML/0224

The font size of part titles shall be larger than that for section titles.  
eAIP/HTML/0225

Level 1 sub-sections shall have titles in upper case text.  
eAIP/HTML/0226

Level 2 sub-sections shall have titles in mixed case text.  
eAIP/HTML/0227

All other titles shall be in mixed case.  
eAIP/HTML/0228

All other titles shall be black.  
eAIP/HTML/0229

The text in the sections of the eAIP shall be black.  
eAIP/HTML/0230

### **7.3.5.1. AIP Content Abbreviations**

Abbreviations may be underlined in the text of the AIP by a dashed line.  
eAIP/HTML/0231

When the cursor is placed over an underlined abbreviation a hint shall be displayed providing the full definition of the abbreviation.  
eAIP/HTML/0232

When the cursor is placed over an underlined abbreviation, a question mark shall appear with the hint.  
eAIP/HTML/0233

### **7.3.5.2. AIP Content Links**

Where other sections of the eAIP are referred to, a link shall be provided to that section.  
eAIP/HTML/0234

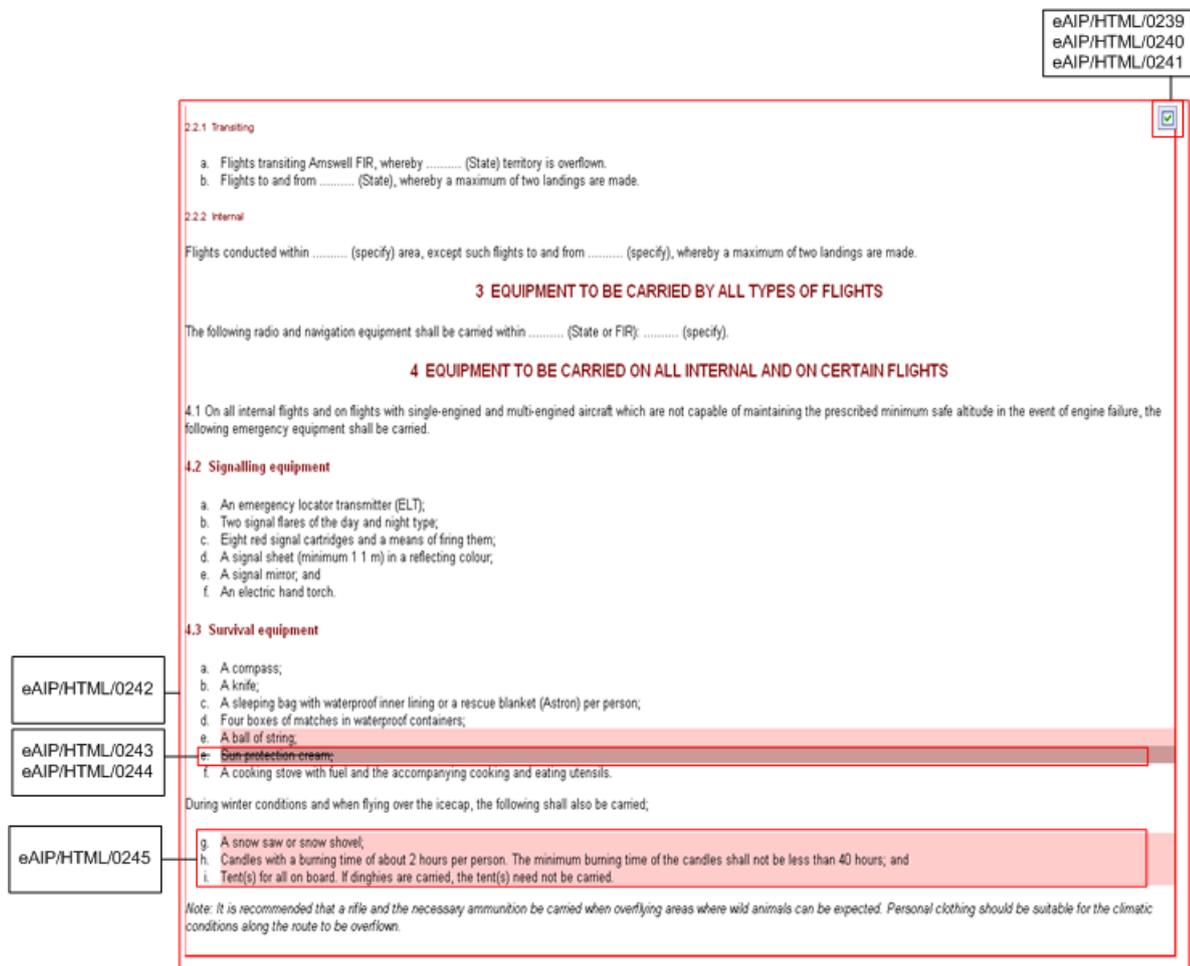
The links shall be highlighted in blue text.  
eAIP/HTML/0235

The links shall be underlined.  
eAIP/HTML/0236

When the link is clicked, the appropriate section of the eAIP shall open in the right-hand pane of the window.  
eAIP/HTML/0237

### 7.3.5.3. AIP Content Amendments

Figure 7.13. AIP Content Amendments



The user shall be able to select to show amendments within the body of the eAIP text.  
eAIP/HTML/0238

There shall be a checkbox in the top right-hand side of the right-hand pane of the window to allow the user to choose whether to show amendments.  
eAIP/HTML/0239

The checkbox shall be titled 'Show Amendments'.  
eAIP/HTML/0240

A tick shall be displayed in the checkbox when 'Show Amendments' is turned on.  
eAIP/HTML/0241

When 'Show Amendments' is turned on, all deleted and added text shall be displayed.  
eAIP/HTML/0242

Deleted text shall be displayed as struck through when 'Show Amendments' is on.  
eAIP/HTML/0243

Deleted text shall be highlighted with a dark pink background.  
eAIP/HTML/0244

Added text shall be highlighted with a light pink background.  
eAIP/HTML/0245

### 7.3.6. AMDT Content

Figure 7.14. AMDT Content

Route Designator (RNP-Type)	Significant Point Name	Track MAG ↓ / ↑	Dist (KM)	(COP)	Upper limit / Lower limit	Minimum flight altitude	Lateral limits (KM)	FL series ↓   ↑	Remarks
<b>A3</b> (RNP-4)	Route availability: (1) H24								
• BARIM	423006N 0370006W								
	074 / 254	69 KM			FL 195 / 900 M ALT	1 200 M	18	Odd (O) Even (E)	Amswell ACC FREQ: 120.300 MHz [Class C]
• WOBAN	424030N 0361024W								

Route Designator (RNP Type)	Significant Point Name	Track MAG ↓ / ↑	Dist (KM)	(COP)	Upper limit / Lower limit	Minimum flight altitude	Lateral limits (KM)	FL series ↓   ↑	Remarks
<b>A4</b> (RNP 4)	Route availability: (1) H24								
• BARIM	423006N 0370006W								(O)
	074 / 254	69 KM			FL 195 / 900 M ALT	1 200 M	18	Odd (O) Even (E)	Amswell ACC FREQ: 120.300 MHz [Class C]
• WOBAN	424030N 0361024W								
	053 / 233	771 KM (489/282)			FL 195 / 900 M ALT	1 200 M		Odd (O) Even (E)	Amswell ACC FREQ: 120.300 MHz [Class C]
• EKCOMBE	470812N 028383W								
	064 / 244	446 KM			FL 195 / 900 M ALT	1 200 M		Odd (O) Even (E)	Amswell ACC FREQ: 120.300 MHz [Class C]
• LIMAD	484800N 0231300W								
	064 / 244	163 KM			FL 195 / 900 M ALT	1 200 M		Odd (O) Even (E)	Amswell ACC FREQ: 120.300 MHz [Class C]
• VEGAT	492130N 0210800W								(O)

*Point/Segment Remarks:*  
(2) For continuation, see AIP ..... (specify).

When a change has been selected, the content displayed on the right-hand pane shall be the AIP page where the change has been made.  
eAIP/HTML/0246

The specific change selected shall be highlighted by a red border.  
eAIP/HTML/0247

Deleted text shall be struck through.  
eAIP/HTML/0248

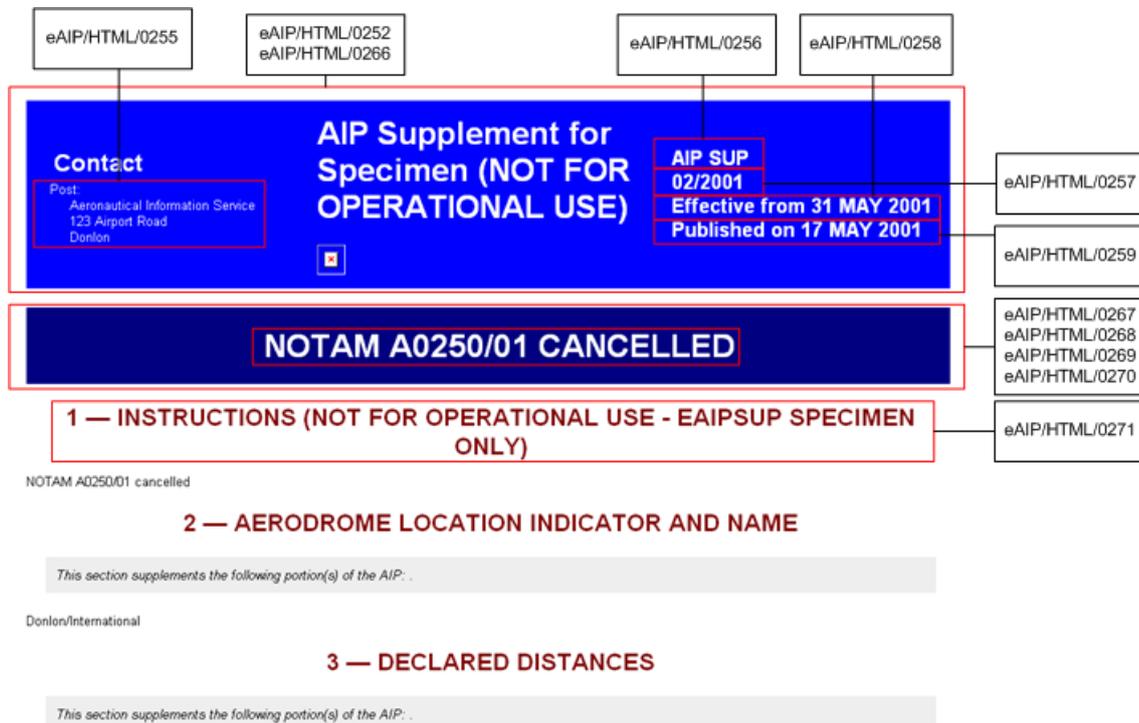
Deleted text shall have a dark pink background.  
eAIP/HTML/0249

Added text shall have a light pink background.  
eAIP/HTML/0250

The amended text shall be displayed at the top of the right-hand pane, unless it is at the bottom of a page.  
eAIP/HTML/0251

### 7.3.7. AIP Supplement Content

Figure 7.15. AIP Supplement Content



The AIP Supplement page shall have a light blue header.  
eAIP/HTML/0252

The AIP Supplement header shall contain the following information:

The name of the issuing State;  
eAIP/HTML/0253

The name of the publishing organisation;  
eAIP/HTML/0254

The postal address of the publishing authority;  
eAIP/HTML/0255

An indication that this the document is an AIP Supplement;  
eAIP/HTML/0256

The Number/Year of the AIP Supplement;  
eAIP/HTML/0257

The effective date of the AIP Supplement;  
eAIP/HTML/0258

The publication date of the AIP Supplement.  
eAIP/HTML/0259

The AIP Supplement header may contain the following additional information:

The logo of the State;  
eAIP/HTML/0260

The telephone number of the publishing organisation;  
eAIP/HTML/0261

The fax number of the publishing organisation;  
eAIP/HTML/0262

The email address of the publishing organisation;  
eAIP/HTML/0263

The website address of the publishing organisation;  
eAIP/HTML/0264

The address of the AFS.  
eAIP/HTML/0265

The text displayed in the AIP Supplement header shall be white.  
eAIP/HTML/0266

The AIP Supplement shall have a header containing the subject of the AIP Supplement.  
eAIP/HTML/0267

The subject header shall be dark blue.  
eAIP/HTML/0268

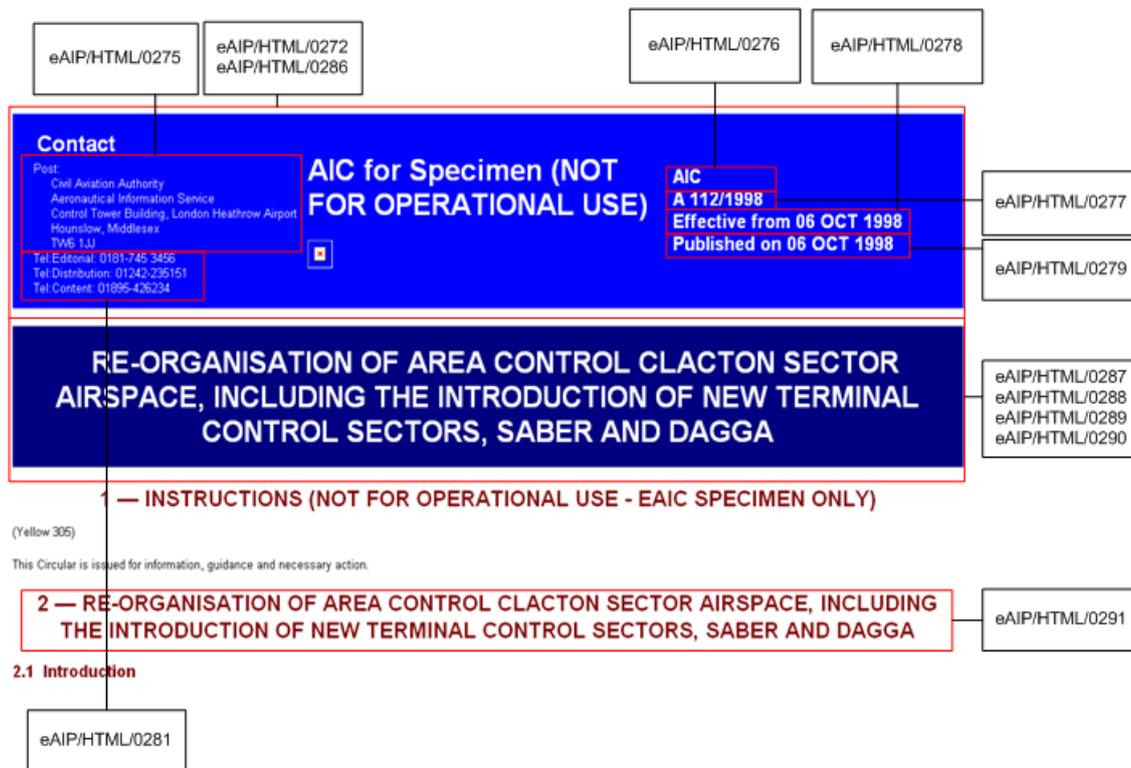
The subject text shall be in white.  
eAIP/HTML/0269

The subject text shall be upper case.  
eAIP/HTML/0270

All sub-headings shall be in black text.  
eAIP/HTML/0271

### 7.3.8. AIC Content

Figure 7.16. AIC Content



The AIP Supplement page shall have a light blue header.  
eAIP/HTML/0272

The AIP Supplement header shall contain the following information:

The name of the issuing State;  
eAIP/HTML/0273

The name of the publishing organisation;  
eAIP/HTML/0274

The postal address of the publishing authority;  
eAIP/HTML/0275

An indication that this document is an AIC;  
eAIP/HTML/0276

The Number/Year of the AIC;  
eAIP/HTML/0277

The effective date of the AIC;  
eAIP/HTML/0278

The publication date of the AIC.  
eAIP/HTML/0279

The AIP Supplement header may contain the following additional information:

The logo of the State;  
eAIP/HTML/0280

The telephone number of the publishing organisation;  
eAIP/HTML/0281

The fax number of the publishing organisation;  
eAIP/HTML/0282

The email address of the publishing organisation;  
eAIP/HTML/0283

The website address of the publishing organisation;  
eAIP/HTML/0284

The address of the AFS.  
eAIP/HTML/0285

The text displayed in the AIC header shall be white.  
eAIP/HTML/0286

The AIC shall have a header containing the subject of the AIC.  
eAIP/HTML/0287

The subject header shall be dark blue.  
eAIP/HTML/0288

The subject text shall be white.  
eAIP/HTML/0289

The subject text shall be upper case.  
eAIP/HTML/0290

All sub-headings shall be black.  
eAIP/HTML/0291



# Appendix A. References and Useful Links

XML: [<http://www.w3.org/XML/>]  
Specification and other links

XSL-FO and XSLT: [<http://www.w3.org/Style/XSL/>]  
Specification and other links

SVG: [<http://www.w3.org/Graphics/SVG/>]  
Scalable Vector Graphics, an XML-based vectorial graphics format



## Appendix B. Glossary

AIC	Aeronautical Information Circular
AIM	Aeronautical Information Management
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information Regulation and Control
AIS	Aeronautical Information Services
AIXM	Aeronautical Information Exchange Model
AMDT	Amendment
ATM	Air Traffic Management
ATS	Air Traffic Services
CA	Certification Authority
CSS	Cascading Stylesheet
DTD	Document Type Definition
EAD	European AIS Database
eAIP	Electronic AIP
ECAC	European Civil Aviation Conference
FTP	File Transfer Protocol
HTML	HyperText Mark-up Language
IAIP	Integrated Aeronautical Information Package
ICAO	International Civil Aviation Organisation
PAMS	Published AIP Management System
PDF	Portable Document Format
PGP	Pretty Good Privacy
SARPs	Standards and Recommended Practices
SGML	Standard Generalized Markup Language (ISO 8879)
SSL	Secure Socket Layer
SUP	AIP Supplement
SVG	Scalable Vector Graphics

VFR	Visual Flight Rules
W3C	World Wide Web Consortium
XHTML	eXtensible HyperText Markup Language
XML	Extensible Markup Language
XSL-FO	Extensible Stylesheet Language - Formatting Object
XSLT	Extensible Stylesheet Language Transformations

# Appendix C. EUROCONTROL DTD Source Files

## C.1. Introduction

This appendix contains all of the EUROCONTROL DTD source files. A DTD consists of module, each of which is included in a separate section below. The DTD is based on XHTML. For further details please visit the W3C website. [<http://www.w3.org/MarkUp/>]

### Modularisation

The advantages of modularisation are:

- It makes it easier to modify the XHTML integration further at a later stage;
- Other AIS DTDs can be created at a later stage and benefit from the re-use of existing modules;
- It makes the maintenance of the EUROCONTROL DTD files easier as XHTML files are not modified.

Modularisation allows for easy extension, re-use and maintenance.

### Changes

The following changes were necessary for the DTD validation. In normal circumstances, XHTML files should not be modified.

xhtml-framework-1.mod:

line 52: `<!ENTITY % xhtml-xlink.mod " ">` inserted a space inside the double quotes.

xhtml-qname-1.mod:

line 68: `<!ENTITY % xhtml-qname-extra.mod " ">` inserted a space inside the double quotes;

line 106: `<!ENTITY % xhtml-qname.redecl " ">` inserted a space inside the double quotes.

The original files are available from the W3C Web site [<http://www.w3.org/TR/xhtml-modularization/>].

### Note

Further changes to the XHTML content model and entities are not described here, as they are part of eAIP DTD files.

## C.2. eAIP.dtd

```
<!-- eAIP DTD ***** -->
<!-- file: eAIP.dtd
  Version: 1.1.0
  Date: 10 February 2006

  Copyright (c) 2000-2002 EUROCONTROL, all rights reserved.
  This work is subject to the license provided in the file LICENSE.txt.

  PUBLIC "-//EUROCONTROL//eAIP DTD 1.1.0//EN"
  SYSTEM "http://www.eurocontrol.int/eaip/dtd/1.1.0/eAIP.dtd">
  xmlns:e="http://www.eurocontrol.int/xmlns/AIM/eAIP"
```

```
*****
-->
<!-- This is the DTD driver for eAIP -->
<!-- Note: the eAIP DTD makes use of W3C's XHTML Modularization, but is not XHTML
conforming at any level. -->
<!-- correction of XHTML 1.1 entities -->
<!ENTITY lt "&#38;#60;">
<!ENTITY amp "&#38;#38;">
<!-- Namespaces control -->
<!ENTITY % NS.prefixed "INCLUDE">
<!ENTITY % XHTML.prefix "x">
<!-- XHTML version -->
<!ENTITY % XHTML.version "-//EUROCONTROL//eAIP DTD 1.1//EN">
<!-- reserved for use with document profiles -->
<!ENTITY % XHTML.profile "">
<!-- Tell the framework to use our qualified names module as an extra qname
driver -->
<!ENTITY % xhtml-qname-extra.mod SYSTEM "eAIP-qname.mod">
<!-- Define the Content Model for the framework to use -->
<!ENTITY % xhtml-model.mod SYSTEM "eAIP-model.mod">
<!-- Disable bidirectional text support -->
<!ENTITY % XHTML.bidi "IGNORE">
<!-- Bring in the XHTML Framework -->
<!ENTITY % xhtml-framework.mod PUBLIC "-//W3C//ENTITIES XHTML Modular Framework 1.0//EN"
"xhtml-framework-1.mod">
%xhtml-framework.mod;
<!-- Basic Text Module (Required) ..... -->
<!ENTITY % xhtml-text.mod PUBLIC "-//W3C//ELEMENTS XHTML Basic Text 1.0//EN"
"xhtml-text-1.mod">
%xhtml-text.mod;
<!-- Hypertext Module (required) ..... -->
<!ENTITY % xhtml-hypertext.mod PUBLIC "-//W3C//ELEMENTS XHTML Hypertext 1.0//EN"
"xhtml-hypertext-1.mod">
%xhtml-hypertext.mod;
<!-- Lists Module (required) ..... -->
<!ENTITY % xhtml-list.mod PUBLIC "-//W3C//ELEMENTS XHTML Lists 1.0//EN"
"xhtml-list-1.mod">
%xhtml-list.mod;
<!-- Table Module ..... -->
<!ENTITY % xhtml-table.mod PUBLIC "-//W3C//ELEMENTS XHTML Tables 1.0//EN"
"xhtml-table-1.mod">
%xhtml-table.mod;
<!-- eAIP Modules ..... -->
<!-- Common attributes -->
<!ENTITY % eAIP-attribs.mod SYSTEM "eAIP-attribs.mod">
%eAIP-attribs.mod;
<!-- Specific and generic structural elements -->
<!ENTITY % eAIP-structure.mod SYSTEM "eAIP-structure.mod">
%eAIP-structure.mod;
<!ENTITY % eAIP-gen.mod SYSTEM "eAIP-gen.mod">
%eAIP-gen.mod;
<!ENTITY % eAIP-enr.mod SYSTEM "eAIP-enr.mod">
%eAIP-enr.mod;
<!ENTITY % eAIP-ad.mod SYSTEM "eAIP-ad.mod">
%eAIP-ad.mod;
<!-- block elements -->
<!ENTITY % eAIP-block.mod SYSTEM "eAIP-block.mod">
%eAIP-block.mod;
<!-- inline elements -->
<!ENTITY % eAIP-inline.mod SYSTEM "eAIP-inline.mod">
%eAIP-inline.mod;
<!-- Amendment elements -->
<!ENTITY % eAIP-amdt.mod SYSTEM "eAIP-amdt.mod">
```

```
%eAIP-amdt.mod;
<!-- Specific GEN elements -->
<!ENTITY % eAIP-gentables.mod SYSTEM "eAIP-gentables.mod">
%eAIP-gentables.mod;
<!-- Specific ENR elements -->
<!ENTITY % eAIP-enrtables.mod SYSTEM "eAIP-enrtables.mod">
%eAIP-enrtables.mod;
<!-- Supplement specific elements in an eAIP -->
<!ENTITY % eAIP-sup.mod SYSTEM "eAIP-sup.mod">
%eAIP-sup.mod;
<!-- eSUP Structure elements -->
<!ENTITY % eSUP-structure.mod SYSTEM "eSUP-structure.mod">
%eSUP-structure.mod;
<!-- eAIC Structure elements -->
<!ENTITY % eAIC-structure.mod SYSTEM "eAIC-structure.mod">
%eAIC-structure.mod;
<!-- Supplement specific elements -->
<!ENTITY % eAIC-eSUP.mod SYSTEM "eAIC-eSUP.mod">
%eAIC-eSUP.mod;
```

### C.3. eAIP-qname.mod

```
<!-- eAIP Qname module ***** -->
<!-- file: eAIP-qname.mod
Version: 1.1.0
Date: 10 February 2006

Copyright (c) 2000-2002 EUROCONTROL, all rights reserved.
This work is subject to the license provided in the file LICENSE.txt.

This file is part of eAIP.dtd.
*****
-->
<!-- eAIP Qname (Qualified Name) Module

This module declares parameter entities to support namespace-qualified names, namespace
declarations, and name prefixing for eAIP
-->
<!-- ***** -->
<!-- Declare the default value for prefixing of this module's elements -->
<!-- Note that the NS.prefixed will get overridden by the XHTML Framework or
by a document instance. -->
<!ENTITY % NS.prefixed "IGNORE">
<!ENTITY % eAIP.prefixed "%NS.prefixed;">
<!-- Declare the actual namespace of this module -->
<!ENTITY % eAIP.xmlns "http://www.eurocontrol.int/xmlns/AIM/eAIP">
<!-- Declare the default prefix for this module -->
<!ENTITY % eAIP.prefix "e">
<!-- Declare the prefix for this module -->
<![%eAIP.prefixed;[
<!ENTITY % eAIP.pfx "%eAIP.prefix;:" >
]]>
<!ENTITY % eAIP.pfx "">
<!-- Declare a Parameter Entity (PE) that defines any external namespaces
that are used by this module -->
<!ENTITY % eAIP.xmlns.extra.attrib "
xmlns:xlink CDATA #FIXED 'http://www.w3.org/1999/xlink'
">
<!-- Declare a PE that defines the xmlns attributes for use by eAIP elements. -->
<![%eAIP.prefixed;[
<!ENTITY % eAIP.xmlns.attrib
"xmlns:%eAIP.prefix; %URI.datatype; #FIXED '%eAIP.xmlns;'
%eAIP.xmlns.extra.attrib;"
```

```

>
]]>
<!ENTITY % eAIP.xmlns.attrib "xmlns %URI.datatype; #FIXED '%eAIP.xmlns;'  
    %eAIP.xmlns.extra.attrib;">
<!-- Make sure that the eAIP namespace attributes are included on the XHTML  
    attribute set -->
<![%NS.prefixed;[
<!ENTITY % XHTML.xmlns.extra.attrib  
    "%eAIP.xmlns.attrib;" >
]]>
<!ENTITY % XHTML.xmlns.extra.attrib ">
<!-- *****  
    Now declare the qualified names for all of the elements in the module  
    ***** -->
<!-- eAIP-structure.mod -->
<!ENTITY % eAIP.eAIP.qname "%eAIP.pfx;eAIP">
<!ENTITY % eAIP.Sub-section.qname "%eAIP.pfx;Sub-section">
<!-- eAIP-gen.mod -->
<!ENTITY % eAIP.GEN.qname "%eAIP.pfx;GEN">
<!ENTITY % eAIP.GEN-0.qname "%eAIP.pfx;GEN-0">
<!ENTITY % eAIP.GEN-1.qname "%eAIP.pfx;GEN-1">
<!ENTITY % eAIP.GEN-2.qname "%eAIP.pfx;GEN-2">
<!ENTITY % eAIP.GEN-3.qname "%eAIP.pfx;GEN-3">
<!ENTITY % eAIP.GEN-4.qname "%eAIP.pfx;GEN-4">
<!ENTITY % eAIP.GEN-0.1.qname "%eAIP.pfx;GEN-0.1">
<!ENTITY % eAIP.GEN-0.2.qname "%eAIP.pfx;GEN-0.2">
<!ENTITY % eAIP.GEN-0.3.qname "%eAIP.pfx;GEN-0.3">
<!ENTITY % eAIP.GEN-0.4.qname "%eAIP.pfx;GEN-0.4">
<!ENTITY % eAIP.GEN-0.5.qname "%eAIP.pfx;GEN-0.5">
<!ENTITY % eAIP.GEN-0.6.qname "%eAIP.pfx;GEN-0.6">
<!ENTITY % eAIP.GEN-1.1.qname "%eAIP.pfx;GEN-1.1">
<!ENTITY % eAIP.GEN-1.2.qname "%eAIP.pfx;GEN-1.2">
<!ENTITY % eAIP.GEN-1.3.qname "%eAIP.pfx;GEN-1.3">
<!ENTITY % eAIP.GEN-1.4.qname "%eAIP.pfx;GEN-1.4">
<!ENTITY % eAIP.GEN-1.5.qname "%eAIP.pfx;GEN-1.5">
<!ENTITY % eAIP.GEN-1.6.qname "%eAIP.pfx;GEN-1.6">
<!ENTITY % eAIP.GEN-1.7.qname "%eAIP.pfx;GEN-1.7">
<!ENTITY % eAIP.GEN-2.1.qname "%eAIP.pfx;GEN-2.1">
<!ENTITY % eAIP.GEN-2.2.qname "%eAIP.pfx;GEN-2.2">
<!ENTITY % eAIP.GEN-2.3.qname "%eAIP.pfx;GEN-2.3">
<!ENTITY % eAIP.GEN-2.4.qname "%eAIP.pfx;GEN-2.4">
<!ENTITY % eAIP.GEN-2.5.qname "%eAIP.pfx;GEN-2.5">
<!ENTITY % eAIP.GEN-2.6.qname "%eAIP.pfx;GEN-2.6">
<!ENTITY % eAIP.GEN-2.7.qname "%eAIP.pfx;GEN-2.7">
<!ENTITY % eAIP.GEN-3.1.qname "%eAIP.pfx;GEN-3.1">
<!ENTITY % eAIP.GEN-3.2.qname "%eAIP.pfx;GEN-3.2">
<!ENTITY % eAIP.GEN-3.3.qname "%eAIP.pfx;GEN-3.3">
<!ENTITY % eAIP.GEN-3.4.qname "%eAIP.pfx;GEN-3.4">
<!ENTITY % eAIP.GEN-3.5.qname "%eAIP.pfx;GEN-3.5">
<!ENTITY % eAIP.GEN-3.6.qname "%eAIP.pfx;GEN-3.6">
<!ENTITY % eAIP.GEN-4.1.qname "%eAIP.pfx;GEN-4.1">
<!ENTITY % eAIP.GEN-4.2.qname "%eAIP.pfx;GEN-4.2">
<!-- eAIP-enr.mod -->
<!ENTITY % eAIP.ENR.qname "%eAIP.pfx;ENR">
<!ENTITY % eAIP.ENR-0.qname "%eAIP.pfx;ENR-0">
<!ENTITY % eAIP.ENR-1.qname "%eAIP.pfx;ENR-1">
<!ENTITY % eAIP.ENR-2.qname "%eAIP.pfx;ENR-2">
<!ENTITY % eAIP.ENR-3.qname "%eAIP.pfx;ENR-3">
<!ENTITY % eAIP.ENR-4.qname "%eAIP.pfx;ENR-4">
<!ENTITY % eAIP.ENR-5.qname "%eAIP.pfx;ENR-5">
<!ENTITY % eAIP.ENR-6.qname "%eAIP.pfx;ENR-6">
<!ENTITY % eAIP.ENR-0.1.qname "%eAIP.pfx;ENR-0.1">
<!ENTITY % eAIP.ENR-0.2.qname "%eAIP.pfx;ENR-0.2">

```

```
<!ENTITY % eAIP.ENR-0.3.qname "%eAIP.pfx;ENR-0.3">
<!ENTITY % eAIP.ENR-0.4.qname "%eAIP.pfx;ENR-0.4">
<!ENTITY % eAIP.ENR-0.5.qname "%eAIP.pfx;ENR-0.5">
<!ENTITY % eAIP.ENR-0.6.qname "%eAIP.pfx;ENR-0.6">
<!ENTITY % eAIP.ENR-1.1.qname "%eAIP.pfx;ENR-1.1">
<!ENTITY % eAIP.ENR-1.2.qname "%eAIP.pfx;ENR-1.2">
<!ENTITY % eAIP.ENR-1.3.qname "%eAIP.pfx;ENR-1.3">
<!ENTITY % eAIP.ENR-1.4.qname "%eAIP.pfx;ENR-1.4">
<!ENTITY % eAIP.ENR-1.5.qname "%eAIP.pfx;ENR-1.5">
<!ENTITY % eAIP.ENR-1.6.qname "%eAIP.pfx;ENR-1.6">
<!ENTITY % eAIP.ENR-1.7.qname "%eAIP.pfx;ENR-1.7">
<!ENTITY % eAIP.ENR-1.8.qname "%eAIP.pfx;ENR-1.8">
<!ENTITY % eAIP.ENR-1.9.qname "%eAIP.pfx;ENR-1.9">
<!ENTITY % eAIP.ENR-1.10.qname "%eAIP.pfx;ENR-1.10">
<!ENTITY % eAIP.ENR-1.11.qname "%eAIP.pfx;ENR-1.11">
<!ENTITY % eAIP.ENR-1.12.qname "%eAIP.pfx;ENR-1.12">
<!ENTITY % eAIP.ENR-1.13.qname "%eAIP.pfx;ENR-1.13">
<!ENTITY % eAIP.ENR-1.14.qname "%eAIP.pfx;ENR-1.14">
<!ENTITY % eAIP.ENR-2.1.qname "%eAIP.pfx;ENR-2.1">
<!ENTITY % eAIP.ENR-2.2.qname "%eAIP.pfx;ENR-2.2">
<!ENTITY % eAIP.ENR-3.1.qname "%eAIP.pfx;ENR-3.1">
<!ENTITY % eAIP.ENR-3.2.qname "%eAIP.pfx;ENR-3.2">
<!ENTITY % eAIP.ENR-3.3.qname "%eAIP.pfx;ENR-3.3">
<!ENTITY % eAIP.ENR-3.4.qname "%eAIP.pfx;ENR-3.4">
<!ENTITY % eAIP.ENR-3.5.qname "%eAIP.pfx;ENR-3.5">
<!ENTITY % eAIP.ENR-3.6.qname "%eAIP.pfx;ENR-3.6">
<!ENTITY % eAIP.ENR-4.1.qname "%eAIP.pfx;ENR-4.1">
<!ENTITY % eAIP.ENR-4.2.qname "%eAIP.pfx;ENR-4.2">
<!ENTITY % eAIP.ENR-4.3.qname "%eAIP.pfx;ENR-4.3">
<!ENTITY % eAIP.ENR-4.4.qname "%eAIP.pfx;ENR-4.4">
<!ENTITY % eAIP.ENR-4.5.qname "%eAIP.pfx;ENR-4.5">
<!ENTITY % eAIP.ENR-5.1.qname "%eAIP.pfx;ENR-5.1">
<!ENTITY % eAIP.ENR-5.2.qname "%eAIP.pfx;ENR-5.2">
<!ENTITY % eAIP.ENR-5.3.qname "%eAIP.pfx;ENR-5.3">
<!ENTITY % eAIP.ENR-5.4.qname "%eAIP.pfx;ENR-5.4">
<!ENTITY % eAIP.ENR-5.5.qname "%eAIP.pfx;ENR-5.5">
<!ENTITY % eAIP.ENR-5.6.qname "%eAIP.pfx;ENR-5.6">
<!-- eAIP-ad.mod -->
<!ENTITY % eAIP.AD.qname "%eAIP.pfx;AD">
<!ENTITY % eAIP.AD-0.qname "%eAIP.pfx;AD-0">
<!ENTITY % eAIP.AD-1.qname "%eAIP.pfx;AD-1">
<!ENTITY % eAIP.AD-2.qname "%eAIP.pfx;AD-2">
<!ENTITY % eAIP.AD-3.qname "%eAIP.pfx;AD-3">
<!ENTITY % eAIP.Aerodrome.qname "%eAIP.pfx;Aerodrome">
<!ENTITY % eAIP.Heliport.qname "%eAIP.pfx;Heliport">
<!ENTITY % eAIP.AD-0.1.qname "%eAIP.pfx;AD-0.1">
<!ENTITY % eAIP.AD-0.2.qname "%eAIP.pfx;AD-0.2">
<!ENTITY % eAIP.AD-0.3.qname "%eAIP.pfx;AD-0.3">
<!ENTITY % eAIP.AD-0.4.qname "%eAIP.pfx;AD-0.4">
<!ENTITY % eAIP.AD-0.5.qname "%eAIP.pfx;AD-0.5">
<!ENTITY % eAIP.AD-0.6.qname "%eAIP.pfx;AD-0.6">
<!ENTITY % eAIP.AD-1.1.qname "%eAIP.pfx;AD-1.1">
<!ENTITY % eAIP.AD-1.2.qname "%eAIP.pfx;AD-1.2">
<!ENTITY % eAIP.AD-1.3.qname "%eAIP.pfx;AD-1.3">
<!ENTITY % eAIP.AD-1.4.qname "%eAIP.pfx;AD-1.4">
<!ENTITY % eAIP.AD-2.1.qname "%eAIP.pfx;AD-2.1">
<!ENTITY % eAIP.AD-2.2.qname "%eAIP.pfx;AD-2.2">
<!ENTITY % eAIP.AD-2.3.qname "%eAIP.pfx;AD-2.3">
<!ENTITY % eAIP.AD-2.4.qname "%eAIP.pfx;AD-2.4">
<!ENTITY % eAIP.AD-2.5.qname "%eAIP.pfx;AD-2.5">
<!ENTITY % eAIP.AD-2.6.qname "%eAIP.pfx;AD-2.6">
<!ENTITY % eAIP.AD-2.7.qname "%eAIP.pfx;AD-2.7">
<!ENTITY % eAIP.AD-2.8.qname "%eAIP.pfx;AD-2.8">
```

```
<!ENTITY % eAIP.AD-2.9.qname "%eAIP.pfx;AD-2.9">
<!ENTITY % eAIP.AD-2.10.qname "%eAIP.pfx;AD-2.10">
<!ENTITY % eAIP.AD-2.11.qname "%eAIP.pfx;AD-2.11">
<!ENTITY % eAIP.AD-2.12.qname "%eAIP.pfx;AD-2.12">
<!ENTITY % eAIP.AD-2.13.qname "%eAIP.pfx;AD-2.13">
<!ENTITY % eAIP.AD-2.14.qname "%eAIP.pfx;AD-2.14">
<!ENTITY % eAIP.AD-2.15.qname "%eAIP.pfx;AD-2.15">
<!ENTITY % eAIP.AD-2.16.qname "%eAIP.pfx;AD-2.16">
<!ENTITY % eAIP.AD-2.17.qname "%eAIP.pfx;AD-2.17">
<!ENTITY % eAIP.AD-2.18.qname "%eAIP.pfx;AD-2.18">
<!ENTITY % eAIP.AD-2.19.qname "%eAIP.pfx;AD-2.19">
<!ENTITY % eAIP.AD-2.20.qname "%eAIP.pfx;AD-2.20">
<!ENTITY % eAIP.AD-2.21.qname "%eAIP.pfx;AD-2.21">
<!ENTITY % eAIP.AD-2.22.qname "%eAIP.pfx;AD-2.22">
<!ENTITY % eAIP.AD-2.23.qname "%eAIP.pfx;AD-2.23">
<!ENTITY % eAIP.AD-2.24.qname "%eAIP.pfx;AD-2.24">
<!ENTITY % eAIP.AD-3.1.qname "%eAIP.pfx;AD-3.1">
<!ENTITY % eAIP.AD-3.2.qname "%eAIP.pfx;AD-3.2">
<!ENTITY % eAIP.AD-3.3.qname "%eAIP.pfx;AD-3.3">
<!ENTITY % eAIP.AD-3.4.qname "%eAIP.pfx;AD-3.4">
<!ENTITY % eAIP.AD-3.5.qname "%eAIP.pfx;AD-3.5">
<!ENTITY % eAIP.AD-3.6.qname "%eAIP.pfx;AD-3.6">
<!ENTITY % eAIP.AD-3.7.qname "%eAIP.pfx;AD-3.7">
<!ENTITY % eAIP.AD-3.8.qname "%eAIP.pfx;AD-3.8">
<!ENTITY % eAIP.AD-3.9.qname "%eAIP.pfx;AD-3.9">
<!ENTITY % eAIP.AD-3.10.qname "%eAIP.pfx;AD-3.10">
<!ENTITY % eAIP.AD-3.11.qname "%eAIP.pfx;AD-3.11">
<!ENTITY % eAIP.AD-3.12.qname "%eAIP.pfx;AD-3.12">
<!ENTITY % eAIP.AD-3.13.qname "%eAIP.pfx;AD-3.13">
<!ENTITY % eAIP.AD-3.14.qname "%eAIP.pfx;AD-3.14">
<!ENTITY % eAIP.AD-3.15.qname "%eAIP.pfx;AD-3.15">
<!ENTITY % eAIP.AD-3.16.qname "%eAIP.pfx;AD-3.16">
<!ENTITY % eAIP.AD-3.17.qname "%eAIP.pfx;AD-3.17">
<!ENTITY % eAIP.AD-3.18.qname "%eAIP.pfx;AD-3.18">
<!ENTITY % eAIP.AD-3.19.qname "%eAIP.pfx;AD-3.19">
<!ENTITY % eAIP.AD-3.20.qname "%eAIP.pfx;AD-3.20">
<!ENTITY % eAIP.AD-3.21.qname "%eAIP.pfx;AD-3.21">
<!ENTITY % eAIP.AD-3.22.qname "%eAIP.pfx;AD-3.22">
<!ENTITY % eAIP.AD-3.23.qname "%eAIP.pfx;AD-3.23">
<!ENTITY % eAIP.AD-3.24.qname "%eAIP.pfx;AD-3.24">
<!-- eAIP-blocks.mod -->
<!ENTITY % eAIP.Address.qname "%eAIP.pfx;Address">
<!ENTITY % eAIP.Address-part.qname "%eAIP.pfx;Address-part">
<!ENTITY % eAIP.Title.qname "%eAIP.pfx;Title">
<!-- eAIP-inline.mod -->
<!ENTITY % eAIP.Abbreviation.qname "%eAIP.pfx;Abbreviation">
<!ENTITY % eAIP.Location.qname "%eAIP.pfx;Location">
<!ENTITY % eAIP.Date-time.qname "%eAIP.pfx;Date-time">
<!ENTITY % eAIP.Latitude.qname "%eAIP.pfx;Latitude">
<!ENTITY % eAIP.Longitude.qname "%eAIP.pfx;Longitude">
<!ENTITY % eAIP.Figure.qname "%eAIP.pfx;Figure">
<!ENTITY % eAIP.Graphic-file.qname "%eAIP.pfx;Graphic-file">
<!--<!ENTITY % eAIP.Not-applicable.qname "%eAIP.pfx;Not-applicable">-->
<!ENTITY % eAIP.Generated.qname "%eAIP.pfx;Generated">
<!ENTITY % eAIP.NIL.qname "%eAIP.pfx;NIL">
<!-- eAIP-gentables.mod -->
<!ENTITY % eAIP.Abbreviation-description.qname "%eAIP.pfx;Abbreviation-description">
<!ENTITY % eAIP.Abbreviation-ident.qname "%eAIP.pfx;Abbreviation-ident">
<!ENTITY % eAIP.Abbreviation-details.qname "%eAIP.pfx;Abbreviation-details">
<!ENTITY % eAIP.Location-table.qname "%eAIP.pfx;Location-table">
<!ENTITY % eAIP.Location-definition.qname "%eAIP.pfx;Location-definition">
<!ENTITY % eAIP.Location-ident.qname "%eAIP.pfx;Location-ident">
<!ENTITY % eAIP.Location-name.qname "%eAIP.pfx;Location-name">
```

```
<!-- eAIP-enrtables.mod -->
<!ENTITY % eAIP.Route.qname "%eAIP.pfx;Route">
<!ENTITY % eAIP.Route-designator.qname "%eAIP.pfx;Route-designator">
<!ENTITY % eAIP.Route-RNP.qname "%eAIP.pfx;Route-RNP">
<!ENTITY % eAIP.Route-segment-usage.qname "%eAIP.pfx;Route-segment-usage">
<!ENTITY % eAIP.Route-segment-remark.qname "%eAIP.pfx;Route-segment-remark">
<!ENTITY % eAIP.Significant-point-remark.qname "%eAIP.pfx;Significant-point-remark">
<!ENTITY % eAIP.Route-remark.qname "%eAIP.pfx;Route-remark">
<!ENTITY % eAIP.Significant-point-reference.qname "%eAIP.pfx;
Significant-point-reference">
<!ENTITY % eAIP.Significant-point-ATC.qname "%eAIP.pfx;Significant-point-ATC">
<!ENTITY % eAIP.Significant-point-description.qname "%eAIP.pfx;
Significant-point-description">
<!ENTITY % eAIP.Significant-point-remark-reference.qname "%eAIP.pfx;
Significant-point-remark-reference">
<!ENTITY % eAIP.Navaid-indication.qname "%eAIP.pfx;Navaid-indication">
<!ENTITY % eAIP.Navaid-indication-radial.qname "%eAIP.pfx;Navaid-indication-radial">
<!ENTITY % eAIP.Navaid-indication-distance.qname "%eAIP.pfx;
Navaid-indication-distance">
<!ENTITY % eAIP.Route-segment.qname "%eAIP.pfx;Route-segment">
<!ENTITY % eAIP.Route-segment-RNP.qname "%eAIP.pfx;Route-segment-RNP">
<!ENTITY % eAIP.Route-segment-upper.qname "%eAIP.pfx;Route-segment-upper">
<!ENTITY % eAIP.Route-segment-lower.qname "%eAIP.pfx;Route-segment-lower">
<!ENTITY % eAIP.Route-segment-minimum.qname "%eAIP.pfx;Route-segment-minimum">
<!ENTITY % eAIP.Route-segment-lower-override.qname "%eAIP.pfx;
Route-segment-lower-override">
<!ENTITY % eAIP.Route-segment-width.qname "%eAIP.pfx;Route-segment-width">
<!ENTITY % eAIP.Route-segment-true-track.qname "%eAIP.pfx;Route-segment-true-track">
<!ENTITY % eAIP.Route-segment-reverse-true-track.qname "%eAIP.pfx;
Route-segment-reverse-true-track">
<!ENTITY % eAIP.Route-segment-mag-track.qname "%eAIP.pfx;Route-segment-mag-track">
<!ENTITY % eAIP.Route-segment-reverse-mag-track.qname "%eAIP.pfx;
Route-segment-reverse-mag-track">
<!ENTITY % eAIP.Route-segment-length.qname "%eAIP.pfx;Route-segment-length">
<!ENTITY % eAIP.Route-segment-ATC.qname "%eAIP.pfx;Route-segment-ATC">
<!ENTITY % eAIP.Route-segment-airspace-class.qname "%eAIP.pfx;
Route-segment-airspace-class">
<!ENTITY % eAIP.Route-segment-COP.qname "%eAIP.pfx;Route-segment-COP">
<!ENTITY % eAIP.Route-segment-remark-reference.qname "%eAIP.pfx;
Route-segment-remark-reference">
<!ENTITY % eAIP.Route-segment-usage-reference.qname "%eAIP.pfx;
Route-segment-usage-reference">
<!ENTITY % eAIP.Route-segment-usage-direction.qname "%eAIP.pfx;
Route-segment-usage-direction">
<!ENTITY % eAIP.Route-segment-usage-level-type.qname "%eAIP.pfx;
Route-segment-usage-level-type">
<!ENTITY % eAIP.Designated-point-table.qname "%eAIP.pfx;Designated-point-table">
<!ENTITY % eAIP.Designated-point.qname "%eAIP.pfx;Designated-point">
<!ENTITY % eAIP.Designated-point-ident.qname "%eAIP.pfx;Designated-point-ident">
<!ENTITY % eAIP.SID-STAR.qname "%eAIP.pfx;SID-STAR">
<!ENTITY % eAIP.Navaid-table.qname "%eAIP.pfx;Navaid-table">
<!ENTITY % eAIP.Navaid.qname "%eAIP.pfx;Navaid">
<!ENTITY % eAIP.Navaid-type.qname "%eAIP.pfx;Navaid-type">
<!ENTITY % eAIP.Navaid-name.qname "%eAIP.pfx;Navaid-name">
<!ENTITY % eAIP.Navaid-ident.qname "%eAIP.pfx;Navaid-ident">
<!ENTITY % eAIP.Navaid-magnetic-variation.qname "%eAIP.pfx;
Navaid-magnetic-variation">
<!ENTITY % eAIP.Navaid-declination.qname "%eAIP.pfx;Navaid-declination">
<!ENTITY % eAIP.Navaid-frequency.qname "%eAIP.pfx;Navaid-frequency">
<!ENTITY % eAIP.Navaid-hours.qname "%eAIP.pfx;Navaid-hours">
<!ENTITY % eAIP.Navaid-elevation.qname "%eAIP.pfx;Navaid-elevation">
<!ENTITY % eAIP.Navaid-remarks.qname "%eAIP.pfx;Navaid-remarks">
<!-- eAIP-sup.mod -->
```

```

<!ENTITY % eAIP.Supplement.qname "%eAIP.pfx;Supplement">
<!ENTITY % eAIP.Affects.qname "%eAIP.pfx;Affects">
<!-- eAIP-amdt.mod -->
<!ENTITY % eAIP.Amendment.qname "%eAIP.pfx;Amendment">
<!ENTITY % eAIP.Group.qname "%eAIP.pfx;Group">
<!ENTITY % eAIP.Description.qname "%eAIP.pfx;Description">
<!ENTITY % eAIP.Abstract.qname "%eAIP.pfx;Abstract">
<!ENTITY % eAIP.Inserted.qname "%eAIP.pfx;Inserted">
<!ENTITY % eAIP.Deleted.qname "%eAIP.pfx;Deleted">
<!-- ===== Circulars and Supplements ===== -->
<!-- eAIC-structure.mod -->
<!ENTITY % eAIP.eAIC.qname "%eAIP.pfx;eAIC">
<!-- eSUP-structure.mod -->
<!ENTITY % eAIP.eSUP.qname "%eAIP.pfx;eSUP">
<!ENTITY % eAIP.SUP-section.qname "%eAIP.pfx;SUP-section">
<!ENTITY % eAIP.eAIP-reference.qname "%eAIP.pfx;eAIP-reference">
<!-- eAIC-eSUP.mod -->
<!ENTITY % eAIP.References.qname "%eAIP.pfx;References">

```

## C.4. eAIP-model.mod

```

<!-- eAIP Model module ***** -->
<!-- file: eAIP-model.mod
Version: 1.1.0
Date: 10 February 2006

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This file is part of eAIP.dtd.
*****
-->
<!-- eAIP content model, including relations with XHTML elements -->
<!ENTITY % eAIP.Not-applicable.mix "%eAIP.Title.qname; , %eAIP.NIL.qname;">
<!ENTITY % eAIP.Generated-content.mix "%eAIP.Title.qname; , %eAIP.Generated.qname;">
<!ENTITY % eAIP.Amendments.mix "%eAIP.Title.qname; , (%eAIP.NIL.qname; |
%eAIP.Amendment.qname;+)">
<!ENTITY % eAIP.Supplements.mix "%eAIP.Title.qname; , (%eAIP.NIL.qname; |
%eAIP.Supplement.qname;+)">
<!ENTITY % eAIP.amdt.class "%eAIP.Inserted.qname; | %eAIP.Deleted.qname;">
<!-- ..... Inline Elements ..... -->
<!ENTITY % InlStruct.class "%br.qname; | %span.qname;">
<!ENTITY % InlPhras.class "| %em.qname; | %strong.qname; | %cite.qname;">
<!ENTITY % I18n.class "">
<!ENTITY % I18n.attrib "">
<!ENTITY % Anchor.class "| %a.qname;">
<!ENTITY % Inline.extra "| %eAIP.Abbreviation.qname; | %eAIP.Location.qname; |
%eAIP.Date-time.qname;">
<!-- %Inline.class; includes all inline elements,
used as a component in mixes
-->
<!ENTITY % Inline.class "%InlStruct.class;
%InlPhras.class;
%I18n.class;
%Anchor.class;
%Inline.extra;
">
<!-- %InlNoAnchor.class; includes all non-anchor inlines,
used as a component in mixes
-->
<!ENTITY % InlNoAnchor.class "%InlStruct.class;
%InlPhras.class;
%I18n.class;

```

```

    %Inline.extra;
">
<!-- %InlNoAnchor.mix; includes all non-anchor inlines
-->
<!ENTITY % InlNoAnchor.mix "%InlNoAnchor.class; | %eAIP.amdt.class;
">
<!-- %Inline.mix; includes all inline elements -->
<!ENTITY % Inline.mix "
    %Inline.class; | %eAIP.amdt.class;
">
<!ENTITY % eAIP.Inline.mix "#PCDATA | %Inline.mix;">
<!ENTITY % eAIP.Inline.class "#PCDATA | %Inline.class;">
<!ENTITY % abbr.element "IGNORE">
<!ENTITY % abbr.attlist "IGNORE">
<!ENTITY % acronym.element "IGNORE">
<!ENTITY % acronym.attlist "IGNORE">
<!ENTITY % code.element "IGNORE">
<!ENTITY % code.attlist "IGNORE">
<!ENTITY % dfn.element "IGNORE">
<!ENTITY % dfn.attlist "IGNORE">
<!ENTITY % kbd.element "IGNORE">
<!ENTITY % kbd.attlist "IGNORE">
<!ENTITY % q.element "IGNORE">
<!ENTITY % q.attlist "IGNORE">
<!ENTITY % samp.element "IGNORE">
<!ENTITY % samp.attlist "IGNORE">
<!ENTITY % var.element "IGNORE">
<!ENTITY % var.attlist "IGNORE">
<!-- ..... Block Elements ..... -->
<!ENTITY % List.class "%ul.qname; | %ol.qname;">
<!ENTITY % Table.class "%table.qname;">
<!ENTITY % BlkStruct.class "%p.qname; | %div.qname;">
<!ENTITY % BlkPhras.class "%eAIP.Address.qname; | %eAIP.Figure.qname;">
<!ENTITY % BlkSpecial.class "%Table.class;
">
<!-- %Block.class; includes all block elements,
used as an component in mixes
-->
<!ENTITY % Block.class "%BlkStruct.class;
    %BlkPhras.class;
    %BlkSpecial.class;
">
<!-- %Block.mix; includes all block elements -->
<!ENTITY % Block.mix "
    %List.class;
    | %Block.class;
">
<!ENTITY % dl.element "IGNORE">
<!ENTITY % dl.attlist "IGNORE">
<!ENTITY % dt.element "IGNORE">
<!ENTITY % dt.attlist "IGNORE">
<!ENTITY % dd.element "IGNORE">
<!ENTITY % dd.attlist "IGNORE">
<!ENTITY % address.element "IGNORE">
<!ENTITY % address.attlist "IGNORE">
<!ENTITY % blockquote.element "IGNORE">
<!ENTITY % blockquote.attlist "IGNORE">
<!ENTITY % pre.element "IGNORE">
<!ENTITY % pre.attlist "IGNORE">
<!ENTITY % h1.element "IGNORE">
<!ENTITY % h1.attlist "IGNORE">
<!ENTITY % h2.element "IGNORE">
<!ENTITY % h2.attlist "IGNORE">

```

```

<!ENTITY % h3.element "IGNORE">
<!ENTITY % h3.attlist "IGNORE">
<!ENTITY % h4.element "IGNORE">
<!ENTITY % h4.attlist "IGNORE">
<!ENTITY % h5.element "IGNORE">
<!ENTITY % h5.attlist "IGNORE">
<!ENTITY % h6.element "IGNORE">
<!ENTITY % h6.attlist "IGNORE">
<!-- ..... All Content Elements ..... -->
<!-- %Flow.mix; includes all text content, block and inline
-->
<!ENTITY % Flow.mix "
    %List.class;
    | %Block.class;
    | %Inline.class;
    | %eAIP.amdt.class;
">
<!ENTITY % th.content "( #PCDATA | %Flow.mix; | %eAIP.Title.qname; |
%eAIP.Graphic-file.qname; )*">
<!ENTITY % td.content "( #PCDATA | %Flow.mix; | %eAIP.Title.qname; |
%eAIP.Graphic-file.qname; )*">
<!ENTITY % eAIP.Block.mix "%Block.mix; | %eAIP.Sub-section.qname;">
<!-- eAIP (sub-)section content model -->
<!ENTITY % eAIP.NIL-Block.mix "( (%eAIP.NIL.qname;)?, (%eAIP.Block.mix;)* )+">
<!ENTITY % eAIP.Section.mix "%eAIP.Title.qname;, %eAIP.NIL-Block.mix;">
<!ENTITY % eAIP.Sub-section.mix "%eAIP.Title.qname;?, (%eAIP.Block.mix;)*">
<!ENTITY % eAIP.SUP-section.mix "%eAIP.Title.qname;?, %eAIP.eAIP-reference.qname;*,
(%eAIP.Route.qname; | %eAIP.Aerodrome.qname; | %eAIP.Heliport.qname; | %eAIP.Block.mix;
| %eAIP.SUP-section.qname;)*">
<!-- end of eAIP-model.mod -->

```

## C.5. eAIP-attribs.mod

```

<!-- eAIP Common Attributes module ***** -->
<!-- file: eAIP-attribs.mod
Version: 1.1.0
Date: 10 February 2006

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This file is part of eAIP.dtd.
*****
-->
<!-- eAIP Common Attributes Module

This module defines common attributes of eAIP elements:

-->
<!-- Define a common set of attributes for all eAIP elements -->
<!-- Note about the Remarks attribute:
This Remarks attribute may be useful for editing purpose. It should not be used for
publishing, as it is currently not used by the style sheets. -->
<!ENTITY % eAIP.Remarks.attrib "
Remarks CDATA #IMPLIED

```

```

">
<!ENTITY % eAIP.Common-AIP.attrib "
  %NS.decl.attrib;
  %eAIP.Remarks.attrib;
  %class.attrib;
  xml:base CDATA #IMPLIED
">
<!ENTITY % eAIP.Common.attrib "
  %eAIP.Common-AIP.attrib;
  %title.attrib;

">
<!-- Effective date -->
<!ENTITY % eAIP.Effective-date.attrib "
  Effective-date CDATA #REQUIRED
">
<!-- The "Toc" attribute indicates whether the element is to be included in Tables of
      Contents. This will generally be all "Sections" (GEN 1, GEN 3.4) as well as some
      selected lower level sub-sections.
-->
<!ENTITY % eAIP.Toc-include.attrib "Toc                (Yes | No)      'Yes' ">
<!ENTITY % eAIP.Toc-exclude.attrib "Toc                (Yes | No)      'No' ">
<!-- The "Number" attribute is the "Section" numbering (E.g. "ENR 3.4") that will be
      displayed in the document -->
<!ENTITY % eAIP.Number-fixed.attrib "Number CDATA #FIXED">
<!ENTITY % eAIP.Number.attrib "Number CDATA">
<!-- mus tbe completed by a default value or #IMPLIED -->
<!-- The "id" attribute will be used as a source for cross references and the "Ref"
      attribute will be used to refer to that "id" attribute. -->
<!ENTITY % eAIP.Id-req.attrib "id                      ID              #REQUIRED">
<!ENTITY % eAIP.Id.attrib "id                          ID              #IMPLIED">
<!ENTITY % eAIP.Reference.attrib "Ref                  IDREF           #REQUIRED">
<!-- xlink attributes -->
<!ENTITY % eAIP.xlink.attrib '
  xlink:show (embed | replace | new | other | none) "replace"
  xlink:href CDATA #REQUIRED
'>
<!-- common attributes of structural elements -->
<!ENTITY % eAIP.Section.attrib "
  %eAIP.Id-req.attrib;
  %eAIP.Common-AIP.attrib;
">
<!-- common attributes of block elements -->
<!ENTITY % eAIP.Block.attrib "
  %eAIP.Id.attrib;
  %eAIP.Toc-exclude.attrib;
  %eAIP.Common.attrib;
">
<!-- Different kinds of Updated attribute -->
<!ENTITY % eAIP.Updated-ref.attrib "
  Updated-ref IDREF #IMPLIED
  Updated-remark CDATA #IMPLIED
">
<!ENTITY % eAIP.Updated-ins-del.attrib "
  Updated (Inserted | Deleted | No) 'No'
  %eAIP.Updated-ref.attrib;
">
<!-- end of eAIP-attribs.mod -->

```

## C.6. eAIP-structure.mod

```

<!-- eAIP Structure Elements module ***** -->
<!-- file: eAIP-structure.mod

```

Version: 1.1.0  
Date: 10 February 2006

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This file is part of eAIP.dtd.

\*\*\*\*\*

-->

<!-- eAIP Structure Elements Module

This module defines the generic structure of an eAIP XML document:

- The root element eAIP itself
- Sub-section element

-->

<!-- \*\*\*\*\* -->

<!-- Define the eAIP element and attributes -->

<!ELEMENT %eAIP.eAIP.qname; (%eAIP.GEN.qname;, %eAIP.ENR.qname;, %eAIP.AD.qname;)>

<!ATTLIST %eAIP.eAIP.qname;

id ID #REQUIRED  
ICAO-country-code NMTOKENS #REQUIRED  
State CDATA #REQUIRED  
Publishing-state CDATA #IMPLIED  
Publishing-organisation CDATA #REQUIRED  
Edition CDATA #REQUIRED  
Publication-date CDATA #REQUIRED  
%eAIP.Effective-date.attrib;  
%eAIP.Toc-exclude.attrib;  
%eAIP.Common.attrib;  
xml:lang CDATA #REQUIRED  
Version CDATA #REQUIRED

>

<!-- note: Version attribute is required instead of fixed to force editors to explicitly declare the version of the eAIP DTD to which compliance is claimed -->

<!-- Sub-sections are the main objects below the various sections of the eAIP -->

<!ELEMENT %eAIP.Sub-section.qname; (%eAIP.Sub-section.mix;)>

<!ATTLIST %eAIP.Sub-section.qname; %eAIP.Id.attrib;

%eAIP.Updated-ins-del.attrib;  
%eAIP.Common.attrib;  
%eAIP.Toc-exclude.attrib;  
%eAIP.Number.attrib; 'auto'

>

<!-- end of eAIP-structure.mod -->

## C.7. eAIP-gen.mod

<!-- eAIP GEN Structural Elements module \*\*\*\*\* -->

<!-- file: eAIP-gen.mod

Version: 1.1.0  
Date: 10 February 2006

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This file is part of eAIP.dtd.

\*\*\*\*\*

-->

<!-- eAIP GEN Structural Elements Module

This module defines the structure of the GEN part of an eAIP XML document:

-->

<!-- PART 1 - GENERAL (GEN) -->

<!ELEMENT %eAIP.GEN.qname; (%eAIP.Title.qname;, %eAIP.GEN-0.qname;, %eAIP.GEN-1.qname; ,

```

%eAIP.GEN-2.qname; , %eAIP.GEN-3.qname; , %eAIP.GEN-4.qname; )>
<!ATTLIST %eAIP.GEN.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-exclude.attrib;
                                %eAIP.Number-fixed.attrib;                "Part 1"
>
<!-- ***** GEN 0 ***** -->
<!ELEMENT %eAIP.GEN-0.qname; (%eAIP.Title.qname; , %eAIP.GEN-0.1.qname; ,
%eAIP.GEN-0.2.qname; , %eAIP.GEN-0.3.qname; , %eAIP.GEN-0.4.qname; ,
%eAIP.GEN-0.5.qname; , %eAIP.GEN-0.6.qname; )>
<!ATTLIST %eAIP.GEN-0.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-exclude.attrib;
                                %eAIP.Number-fixed.attrib;                "GEN 0"
>
<!-- GEN 0.1 Preface -->
<!ELEMENT %eAIP.GEN-0.1.qname; (%eAIP.Section.mix; )>
<!ATTLIST %eAIP.GEN-0.1.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-exclude.attrib;
                                %eAIP.Number-fixed.attrib;                "GEN 0.1"
>
<!-- GEN 0.2 Record of AIP Amendments -->
<!ELEMENT %eAIP.GEN-0.2.qname; (%eAIP.Amendments.mix; )>
<!ATTLIST %eAIP.GEN-0.2.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-exclude.attrib;
                                %eAIP.Number-fixed.attrib;                "GEN 0.2"
>
<!-- GEN 0.3 Record of AIP Supplements -->
<!ELEMENT %eAIP.GEN-0.3.qname; (%eAIP.Supplements.mix; )>
<!ATTLIST %eAIP.GEN-0.3.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-exclude.attrib;
                                %eAIP.Number-fixed.attrib;                "GEN 0.3"
>
<!-- GEN 0.4 Checklist of AIP pages -->
<!ELEMENT %eAIP.GEN-0.4.qname; (%eAIP.Not-applicable.mix; )>
<!ATTLIST %eAIP.GEN-0.4.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-exclude.attrib;
                                %eAIP.Number-fixed.attrib;                "GEN 0.4"
>
<!-- GEN 0.5 List of hand amendments to the AIP -->
<!ELEMENT %eAIP.GEN-0.5.qname; (%eAIP.Section.mix; )>
<!ATTLIST %eAIP.GEN-0.5.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-exclude.attrib;
                                %eAIP.Number-fixed.attrib;                "GEN 0.5"
>
<!-- GEN 0.6 Table of contents to Part 1 -->
<!ELEMENT %eAIP.GEN-0.6.qname; (%eAIP.Generated-content.mix; )>
<!ATTLIST %eAIP.GEN-0.6.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-exclude.attrib;
                                %eAIP.Number-fixed.attrib;                "GEN 0.6"
>
<!-- ***** GEN 1 ***** -->
<!-- GEN 1. NATIONAL REGULATIONS AND REQUIREMENTS -->
<!ELEMENT %eAIP.GEN-1.qname; (%eAIP.Title.qname; , %eAIP.GEN-1.1.qname; ,
%eAIP.GEN-1.2.qname; , %eAIP.GEN-1.3.qname; , %eAIP.GEN-1.4.qname; , %eAIP.GEN-1.5.qname; ,
%eAIP.GEN-1.6.qname; , %eAIP.GEN-1.7.qname; )>
<!ATTLIST %eAIP.GEN-1.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "GEN 1"
>
<!-- GEN 1.1 Designated authorities -->
<!ELEMENT %eAIP.GEN-1.1.qname; (%eAIP.Section.mix; )>
<!ATTLIST %eAIP.GEN-1.1.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "GEN 1.1"

```

```

>
<!-- GEN 1.2 Entry, transit and departure of aircraft -->
<!ELEMENT %eAIP.GEN-1.2.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-1.2.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;
                %eAIP.Number-fixed.attrib;                "GEN 1.2"
>
<!-- GEN 1.3 Entry, transit and departure of passengers and crew -->
<!ELEMENT %eAIP.GEN-1.3.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-1.3.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;
                %eAIP.Number-fixed.attrib;                "GEN 1.3"
>
<!-- GEN 1.4 Entry, transit and departure of cargo -->
<!ELEMENT %eAIP.GEN-1.4.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-1.4.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;
                %eAIP.Number-fixed.attrib;                "GEN 1.4"
>
<!-- GEN 1.5 Aircraft instruments, equipment and flight documents -->
<!ELEMENT %eAIP.GEN-1.5.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-1.5.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;
                %eAIP.Number-fixed.attrib;                "GEN 1.5"
>
<!-- GEN 1.6 Summary of national regulations and international agreements/conventions -->
<!ELEMENT %eAIP.GEN-1.6.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-1.6.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;
                %eAIP.Number-fixed.attrib;                "GEN 1.6"
>
<!-- GEN 1.7 Differences from ICAO Standards, Recommended Practices and Procedures -->
<!ELEMENT %eAIP.GEN-1.7.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-1.7.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;
                %eAIP.Number-fixed.attrib;                "GEN 1.7"
>
<!-- ***** GEN 2 ***** -->
<!-- GEN 2. TABLES AND CODES -->
<!ELEMENT %eAIP.GEN-2.qname; (%eAIP.Title.qname;, %eAIP.GEN-2.1.qname;,
%eAIP.GEN-2.2.qname;, %eAIP.GEN-2.3.qname;, %eAIP.GEN-2.4.qname;, %eAIP.GEN-2.5.qname;,
%eAIP.GEN-2.6.qname;, %eAIP.GEN-2.7.qname;)>
<!ATTLIST %eAIP.GEN-2.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;
                %eAIP.Number-fixed.attrib;                "GEN 2"
>
<!-- GEN 2.1 Measuring system, aircraft markings, holidays -->
<!ELEMENT %eAIP.GEN-2.1.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-2.1.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;
                %eAIP.Number-fixed.attrib;                "GEN 2.1"
>
<!-- GEN 2.2 Abbreviations used in AIS publications -->
<!ENTITY % eAIP.GEN-2.2.content "%eAIP.Title.qname;, (%BlkStruct.class;)?,
%eAIP.Abbreviation-description.qname;*">
<!ELEMENT %eAIP.GEN-2.2.qname; (%eAIP.GEN-2.2.content;)>
<!ATTLIST %eAIP.GEN-2.2.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;
                %eAIP.Number-fixed.attrib;                "GEN 2.2"
>
<!-- GEN 2.3 Chart symbols -->
<!ELEMENT %eAIP.GEN-2.3.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-2.3.qname; %eAIP.Section.attrib;

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                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "GEN 2.3"
>
<!-- GEN 2.4 Location indicators -->
<!ENTITY % eAIP.GEN-2.4.content "%eAIP.Title.qname;, (%BlkStruct.class;)?,
%eAIP.Location-table.qname;+">
<!ELEMENT %eAIP.GEN-2.4.qname; (%eAIP.GEN-2.4.content;)>
<!ATTLIST %eAIP.GEN-2.4.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "GEN 2.4"
>
<!-- GEN 2.5 List of radio navigation aids -->
<!ELEMENT %eAIP.GEN-2.5.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-2.5.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "GEN 2.5"
>
<!-- GEN 2.6 Conversion tables -->
<!ELEMENT %eAIP.GEN-2.6.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-2.6.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "GEN 2.6"
>
<!-- GEN 2.7 Sunrise/sunset tables -->
<!ELEMENT %eAIP.GEN-2.7.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-2.7.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "GEN 2.7"
>
<!-- ***** GEN 3 ***** -->
<!-- GEN 3. SERVICES -->
<!ELEMENT %eAIP.GEN-3.qname; (%eAIP.Title.qname;, %eAIP.GEN-3.1.qname;,
%eAIP.GEN-3.2.qname;, %eAIP.GEN-3.3.qname;, %eAIP.GEN-3.4.qname;, %eAIP.GEN-3.5.qname;,
%eAIP.GEN-3.6.qname;)>
<!ATTLIST %eAIP.GEN-3.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "GEN 3"
>
<!-- GEN 3.1 Aeronautical information services -->
<!ELEMENT %eAIP.GEN-3.1.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-3.1.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "GEN 3.1"
>
<!-- GEN 3.2 Aeronautical charts -->
<!ELEMENT %eAIP.GEN-3.2.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-3.2.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "GEN 3.2"
>
<!-- GEN 3.3 Air traffic service -->
<!ELEMENT %eAIP.GEN-3.3.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-3.3.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "GEN 3.3"
>
<!-- GEN 3.4 Communication services -->
<!ELEMENT %eAIP.GEN-3.4.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-3.4.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "GEN 3.4"
>
<!-- GEN 3.5 Meteorological services -->

```

```

<!ELEMENT %eAIP.GEN-3.5.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-3.5.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;
                %eAIP.Number-fixed.attrib;                "GEN 3.5"
>
<!-- GEN 3.6 Search and rescue -->
<!ELEMENT %eAIP.GEN-3.6.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-3.6.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;
                %eAIP.Number-fixed.attrib;                "GEN 3.6"
>
<!-- ***** GEN 4 ***** -->
<!-- GEN 4. CHARGES FOR AERODROMES/HELIPORTS AND AIR NAVIGATION SERVICES -->
<!ENTITY % eAIP.GEN-4.content "(%eAIP.Title.qname;, (%eAIP.GEN-4.1.qname;,
%eAIP.GEN-4.2.qname;) | (%eAIP.Block.mix;)*)">
<!ELEMENT %eAIP.GEN-4.qname; %eAIP.GEN-4.content;>
<!ATTLIST %eAIP.GEN-4.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;
                %eAIP.Number-fixed.attrib;                "GEN 4"
>
<!-- GEN 4.1 Aerodrome/heliport charges -->
<!ELEMENT %eAIP.GEN-4.1.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-4.1.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;
                %eAIP.Number-fixed.attrib;                "GEN 4.1"
>
<!-- GEN 4.2 Air navigation services charges -->
<!ELEMENT %eAIP.GEN-4.2.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.GEN-4.2.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;
                %eAIP.Number-fixed.attrib;                "GEN 4.2"
>

```

## C.8. eAIP-enr.mod

```

<!-- eAIP ENR Structural Elements module ***** -->
<!-- file: eAIP-enr.mod
Version: 1.1.0
Date: 10 February 2006

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This file is part of eAIP.dtd.
*****
-->
<!-- eAIP ENR Structural Elements Module
This module defines the structure of the ENR part of an eAIP XML document:
-->
<!-- PART 2 - EN-ROUTE (ENR) -->
<!ELEMENT %eAIP.ENR.qname; (%eAIP.Title.qname;, %eAIP.ENR-0.qname;, %eAIP.ENR-1.qname;,
%eAIP.ENR-2.qname;, %eAIP.ENR-3.qname;, %eAIP.ENR-4.qname;, %eAIP.ENR-5.qname;,
%eAIP.ENR-6.qname;)>
<!ATTLIST %eAIP.ENR.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;
                %eAIP.Number-fixed.attrib;                "Part 2"
>
<!-- ***** ENR 0 ***** -->
<!ELEMENT %eAIP.ENR-0.qname; (%eAIP.Title.qname;, %eAIP.ENR-0.1.qname;,
%eAIP.ENR-0.2.qname;, %eAIP.ENR-0.3.qname;, %eAIP.ENR-0.4.qname;,
%eAIP.ENR-0.5.qname;, %eAIP.ENR-0.6.qname;)>
<!ATTLIST %eAIP.ENR-0.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;

```

## Electronic AIP Specification

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```

                                %eAIP.Number-fixed.attrib;                "ENR 0"
>
<!-- ENR 0.1 Preface -->
<!ELEMENT %eAIP.ENR-0.1.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-0.1.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 0.1"
>
<!-- ENR 0.2 Record of AIP Amendments -->
<!ELEMENT %eAIP.ENR-0.2.qname; (%eAIP.Amendments.mix;)>
<!ATTLIST %eAIP.ENR-0.2.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 0.2"
>
<!-- ENR 0.3 Record of AIP Supplements -->
<!ELEMENT %eAIP.ENR-0.3.qname; (%eAIP.Supplements.mix;)>
<!ATTLIST %eAIP.ENR-0.3.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 0.3"
>
<!-- ENR 0.4 Checklist of AIP pages -->
<!ELEMENT %eAIP.ENR-0.4.qname; (%eAIP.Not-applicable.mix;)>
<!ATTLIST %eAIP.ENR-0.4.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 0.4"
>
<!-- ENR 0.5 List of hand amendments to the AIP -->
<!ELEMENT %eAIP.ENR-0.5.qname; (%eAIP.Not-applicable.mix;)>
<!ATTLIST %eAIP.ENR-0.5.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 0.5"
>
<!-- ENR 0.6 Table of contents to Part 2 -->
<!ELEMENT %eAIP.ENR-0.6.qname; (%eAIP.Generated-content.mix;)>
<!ATTLIST %eAIP.ENR-0.6.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 0.6"
>
<!-- ***** ENR 1 ***** -->
<!-- ENR 1. GENERAL RULES AND PROCEDURES -->
<!ELEMENT %eAIP.ENR-1.qname; (%eAIP.Title.qname;, %eAIP.ENR-1.1.qname;,
%eAIP.ENR-1.2.qname;, %eAIP.ENR-1.3.qname;, %eAIP.ENR-1.4.qname;, %eAIP.ENR-1.5.qname;,
%eAIP.ENR-1.6.qname;, %eAIP.ENR-1.7.qname;, %eAIP.ENR-1.8.qname;, %eAIP.ENR-1.9.qname;,
%eAIP.ENR-1.10.qname;, %eAIP.ENR-1.11.qname;, %eAIP.ENR-1.12.qname;,
%eAIP.ENR-1.13.qname;, %eAIP.ENR-1.14.qname;)>
<!ATTLIST %eAIP.ENR-1.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 1"
>
<!-- ENR 1.1 General rules -->
<!ELEMENT %eAIP.ENR-1.1.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-1.1.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 1.1"
>
<!-- ENR 1.2 Visual flight rules -->
<!ELEMENT %eAIP.ENR-1.2.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-1.2.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 1.2"
>
<!-- ENR 1.3 Instrument flight rules -->
<!ELEMENT %eAIP.ENR-1.3.qname; (%eAIP.Section.mix;)>
```

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<!ATTLIST %eAIP.ENR-1.3.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;           "ENR 1.3"
>
<!-- ENR 1.4 ATS airspace classification -->
<!ELEMENT %eAIP.ENR-1.4.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-1.4.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;           "ENR 1.4"
>
<!-- ENR 1.5 Holding, approach and departure procedures -->
<!ELEMENT %eAIP.ENR-1.5.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-1.5.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;           "ENR 1.5"
>
<!-- ENR 1.6 Radar services and procedures -->
<!ELEMENT %eAIP.ENR-1.6.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-1.6.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;           "ENR 1.6"
>
<!-- ENR 1.7 Altimeter setting procedures -->
<!ELEMENT %eAIP.ENR-1.7.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-1.7.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;           "ENR 1.7"
>
<!-- ENR 1.8 Regional supplementary procedures -->
<!ELEMENT %eAIP.ENR-1.8.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-1.8.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;           "ENR 1.8"
>
<!-- ENR 1.9 Air traffic flow management -->
<!ELEMENT %eAIP.ENR-1.9.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-1.9.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;           "ENR 1.9"
>
<!-- ENR 1.10 Flight planning -->
<!ELEMENT %eAIP.ENR-1.10.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-1.10.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;           "ENR 1.10"
>
<!-- ENR 1.11 Addressing of flight plan messages -->
<!ELEMENT %eAIP.ENR-1.11.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-1.11.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;           "ENR 1.11"
>
<!-- ENR 1.12 Interception of civil aircraft -->
<!ELEMENT %eAIP.ENR-1.12.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-1.12.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;           "ENR 1.12"
>
<!-- ENR 1.13 Unlawful interference -->
<!ELEMENT %eAIP.ENR-1.13.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-1.13.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;           "ENR 1.13"

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>
<!-- ENR 1.14 Air traffic incidents -->
<!ELEMENT %eAIP.ENR-1.14.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-1.14.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "ENR 1.14"
>
<!-- ***** ENR 2 ***** -->
<!-- ENR 2. AIR TRAFFIC SERVICES AIRSPACE -->
<!ELEMENT %eAIP.ENR-2.qname; (%eAIP.Title.qname;, %eAIP.ENR-2.1.qname;,
%eAIP.ENR-2.2.qname;)>
<!ATTLIST %eAIP.ENR-2.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "ENR 2"
>
<!-- ENR 2.1 FIR, UIR, TMA -->
<!ELEMENT %eAIP.ENR-2.1.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-2.1.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "ENR 2.1"
>
<!-- ENR 2.2 Other regulated airspace -->
<!ELEMENT %eAIP.ENR-2.2.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-2.2.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "ENR 2.2"
>
<!-- ***** ENR 3 ***** -->
<!-- ENR 3. ATS ROUTES -->
<!ELEMENT %eAIP.ENR-3.qname; (%eAIP.Title.qname;, %eAIP.ENR-3.1.qname;,
%eAIP.ENR-3.2.qname;, %eAIP.ENR-3.3.qname;, %eAIP.ENR-3.4.qname;, %eAIP.ENR-3.5.qname;,
%eAIP.ENR-3.6.qname;)>
<!ATTLIST %eAIP.ENR-3.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "ENR 3"
>
<!ENTITY % eAIP.NIL-Route.mix "( (%eAIP.NIL.qname;)?, (%eAIP.Sub-section.qname; |
%eAIP.Route.qname;)* )+ ">
<!ENTITY % eAIP.Route-section.mix "%eAIP.Title.qname;, (%eAIP.NIL-Route.mix;)">
<!-- ENR 3.1 Lower ATS routes -->
<!ELEMENT %eAIP.ENR-3.1.qname; (%eAIP.Route-section.mix;)>
<!ATTLIST %eAIP.ENR-3.1.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "ENR 3.1"
>
<!-- ENR 3.2 Upper ATS routes -->
<!ELEMENT %eAIP.ENR-3.2.qname; (%eAIP.Route-section.mix;)>
<!ATTLIST %eAIP.ENR-3.2.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "ENR 3.2"
>
<!-- ENR 3.3 Area navigation routes -->
<!ELEMENT %eAIP.ENR-3.3.qname; (%eAIP.Route-section.mix;)>
<!ATTLIST %eAIP.ENR-3.3.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "ENR 3.3"
>
<!-- ENR 3.4 Helicopter routes -->
<!ELEMENT %eAIP.ENR-3.4.qname; (%eAIP.Route-section.mix;)>
<!ATTLIST %eAIP.ENR-3.4.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "ENR 3.4"
>

```

```

<!-- ENR 3.5 Other routes -->
<!ELEMENT %eAIP.ENR-3.5.qname; (%eAIP.Route-section.mix;)>
<!ATTLIST %eAIP.ENR-3.5.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 3.5"
>
<!-- ENR 3.6 En-route holding -->
<!ELEMENT %eAIP.ENR-3.6.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-3.6.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 3.6"
>
<!-- ***** ENR 4 ***** -->
<!-- ENR 4. RADIO NAVIGATION AIDS/SYSTEMS -->
<!ELEMENT %eAIP.ENR-4.qname; (%eAIP.Title.qname;, %eAIP.ENR-4.1.qname;,
%eAIP.ENR-4.2.qname;, %eAIP.ENR-4.3.qname;, %eAIP.ENR-4.4.qname;, %eAIP.ENR-4.5.qname;)>
<!ATTLIST %eAIP.ENR-4.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 4"
>
<!-- ENR 4.1 Radio navigation aids - en-route -->
<!ENTITY % eAIP.ENR-4.1.content "(%eAIP.Title.qname;, (%eAIP.NIL.qname; |
%eAIP.Navaid-table.qname;))">
<!ELEMENT %eAIP.ENR-4.1.qname; %eAIP.ENR-4.1.content;>
<!ATTLIST %eAIP.ENR-4.1.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 4.1"
>
<!-- ENR 4.2 Special navigation systems -->
<!ELEMENT %eAIP.ENR-4.2.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-4.2.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 4.2"
>
<!-- ENR 4.3 GNSS -->
<!ELEMENT %eAIP.ENR-4.3.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-4.3.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 4.3"
>
<!-- ENR 4.4 Name-code designations for significant points -->
<!ENTITY % eAIP.ENR-4.4.content "(%eAIP.Title.qname;, (%eAIP.NIL.qname; |
%eAIP.Designated-point-table.qname;))">
<!ELEMENT %eAIP.ENR-4.4.qname; %eAIP.ENR-4.4.content;>
<!ATTLIST %eAIP.ENR-4.4.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 4.4"
>
<!-- ENR 4.5 Aeronautical ground lights - en-route -->
<!ELEMENT %eAIP.ENR-4.5.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-4.5.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 4.5"
>
<!-- ***** ENR 5 ***** -->
<!-- ENR 5. NAVIGATION WARNINGS -->
<!ELEMENT %eAIP.ENR-5.qname; (%eAIP.Title.qname;, %eAIP.ENR-5.1.qname;,
%eAIP.ENR-5.2.qname;, %eAIP.ENR-5.3.qname;, %eAIP.ENR-5.4.qname;, %eAIP.ENR-5.5.qname;,
%eAIP.ENR-5.6.qname;)>
<!ATTLIST %eAIP.ENR-5.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "ENR 5"
>

```

```

<!-- ENR 5.1 Prohibited, restricted and danger areas -->
<!ELEMENT %eAIP.ENR-5.1.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-5.1.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "ENR 5.1"
>
<!-- ENR 5.2 Military exercise and training areas -->
<!ELEMENT %eAIP.ENR-5.2.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-5.2.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "ENR 5.2"
>
<!-- ENR 5.3 Other activities of a dangerous nature -->
<!ELEMENT %eAIP.ENR-5.3.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-5.3.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "ENR 5.3"
>
<!-- ENR 5.4 Air navigation obstacles - en-route -->
<!ELEMENT %eAIP.ENR-5.4.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-5.4.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "ENR 5.4"
>
<!-- ENR 5.5 Aerial sporting and recreational activities -->
<!ELEMENT %eAIP.ENR-5.5.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-5.5.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "ENR 5.5"
>
<!-- ENR 5.6 Bird migration and areas with sensitive fauna -->
<!ELEMENT %eAIP.ENR-5.6.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-5.6.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "ENR 5.6"
>
<!-- ***** ENR 6 ***** -->
<!-- ENR 6. EN-ROUTE CHARTS -->
<!ELEMENT %eAIP.ENR-6.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.ENR-6.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "ENR 6"
>

```

## C.9. eAIP-ad.mod

```

<!-- eAIP AD Structural Elements module ***** -->
<!-- file: eAIP-ad.mod
    Version: 1.1.0
    Date: 10 February 2006

    Copyright (c) 2000-2002 EUROCONTROL, all rights reserved.
    This work is subject to the license provided in the file LICENSE.txt.

    This file is part of eAIP.dtd.
    *****
-->
<!-- eAIP AD Structural Elements Module
    This module defines the structure of the AD part of an eAIP XML document:
-->
<!-- PART 3 - AERODROMES (AD) -->
<!ENTITY % eAIP.AD.content "(%eAIP.Title.qname;, %eAIP.AD-0.qname;,
%eAIP.AD-1.qname;, %eAIP.AD-2.qname;, %eAIP.AD-3.qname;?)">

```

## Electronic AIP Specification

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```
<!ELEMENT %eAIP.AD.qname; %eAIP.AD.content;>
<!ATTLIST %eAIP.AD.qname; %eAIP.Section.attrib;
                %eAIP.Toc-exclude.attrib;
                %eAIP.Number-fixed.attrib;                "Part 3"
>
<!-- ***** AD 0 ***** -->
<!ELEMENT %eAIP.AD-0.qname; (%eAIP.Title.qname;, %eAIP.AD-0.1.qname;,
%eAIP.AD-0.2.qname;, %eAIP.AD-0.3.qname;, %eAIP.AD-0.4.qname;, %eAIP.AD-0.5.qname;,
%eAIP.AD-0.6.qname;)>
<!ATTLIST %eAIP.AD-0.qname; %eAIP.Section.attrib;
                %eAIP.Toc-exclude.attrib;
                %eAIP.Number-fixed.attrib;                "AD 0"
>
<!-- AD 0.1 Preface -->
<!ELEMENT %eAIP.AD-0.1.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-0.1.qname; %eAIP.Section.attrib;
                %eAIP.Toc-exclude.attrib;
                %eAIP.Number-fixed.attrib;                "AD 0.1"
>
<!-- AD 0.2 Record of AIP Amendments -->
<!ELEMENT %eAIP.AD-0.2.qname; (%eAIP.Amendments.mix;)>
<!ATTLIST %eAIP.AD-0.2.qname; %eAIP.Section.attrib;
                %eAIP.Toc-exclude.attrib;
                %eAIP.Number-fixed.attrib;                "AD 0.2"
>
<!-- AD 0.3 >Record of AIP Supplements -->
<!ELEMENT %eAIP.AD-0.3.qname; (%eAIP.Supplements.mix;)>
<!ATTLIST %eAIP.AD-0.3.qname; %eAIP.Section.attrib;
                %eAIP.Toc-exclude.attrib;
                %eAIP.Number-fixed.attrib;                "AD 0.3"
>
<!-- AD 0.4 Checklist of AIP pages -->
<!ELEMENT %eAIP.AD-0.4.qname; (%eAIP.Not-applicable.mix;)>
<!ATTLIST %eAIP.AD-0.4.qname; %eAIP.Section.attrib;
                %eAIP.Toc-exclude.attrib;
                %eAIP.Number-fixed.attrib;                "AD 0.4"
>
<!-- AD 0.5 List of hand amendments to the AIP -->
<!ELEMENT %eAIP.AD-0.5.qname; (%eAIP.Not-applicable.mix;)>
<!ATTLIST %eAIP.AD-0.5.qname; %eAIP.Section.attrib;
                %eAIP.Toc-exclude.attrib;
                %eAIP.Number-fixed.attrib;                "AD 0.5"
>
<!-- AD 0.6 Table of contents to Part 3 -->
<!ELEMENT %eAIP.AD-0.6.qname; (%eAIP.Generated-content.mix;)>
<!ATTLIST %eAIP.AD-0.6.qname; %eAIP.Section.attrib;
                %eAIP.Toc-exclude.attrib;
                %eAIP.Number-fixed.attrib;                "AD 0.6"
>
<!-- ***** AD 1 ***** -->
<!-- AD 1. AERODROMES/HELIPORTS - INTRODUCTION -->
<!ELEMENT %eAIP.AD-1.qname; (%eAIP.Title.qname;, %eAIP.AD-1.1.qname;,
%eAIP.AD-1.2.qname;, %eAIP.AD-1.3.qname;, %eAIP.AD-1.4.qname;)>
<!ATTLIST %eAIP.AD-1.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;
                %eAIP.Number-fixed.attrib;                "AD 1"
>
<!-- AD 1.1 Aerodromes/heliport availability -->
<!ELEMENT %eAIP.AD-1.1.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-1.1.qname; %eAIP.Section.attrib;
                %eAIP.Toc-include.attrib;
                %eAIP.Number-fixed.attrib;                "AD 1.1"
>
```

```

<!-- AD 1.2 Rescue and fire fighting services and snow plan -->
<!ELEMENT %eAIP.AD-1.2.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-1.2.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 1.2"
>
<!-- AD 1.3 Index to aerodromes and heliports -->
<!ELEMENT %eAIP.AD-1.3.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-1.3.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 1.3"
>
<!-- AD 1.4 Grouping of aerodromes/heliports -->
<!ELEMENT %eAIP.AD-1.4.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-1.4.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 1.4"
>
<!-- ***** AD 2 ***** -->
<!-- AD 2. AERODROMES -->
<!ENTITY % eAIP.AD-2.content "(%eAIP.Title.qname; , %eAIP.Aerodrome.qname;+)">
<!ELEMENT %eAIP.AD-2.qname; %eAIP.AD-2.content;>
<!ATTLIST %eAIP.AD-2.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 2"
>
<!ENTITY % eAIP.Aerodrome.content "(%eAIP.Title.qname; , %eAIP.AD-2.1.qname; ,
%eAIP.AD-2.2.qname; , %eAIP.AD-2.3.qname; , %eAIP.AD-2.4.qname; , %eAIP.AD-2.5.qname; ,
%eAIP.AD-2.6.qname; , %eAIP.AD-2.7.qname; , %eAIP.AD-2.8.qname; , %eAIP.AD-2.9.qname; ,
%eAIP.AD-2.10.qname; , %eAIP.AD-2.11.qname; , %eAIP.AD-2.12.qname; , %eAIP.AD-2.13.qname; ,
%eAIP.AD-2.14.qname; , %eAIP.AD-2.15.qname; , %eAIP.AD-2.16.qname; , %eAIP.AD-2.17.qname; ,
%eAIP.AD-2.18.qname; , %eAIP.AD-2.19.qname; , %eAIP.AD-2.20.qname; , %eAIP.AD-2.21.qname; ,
%eAIP.AD-2.22.qname; , %eAIP.AD-2.23.qname; , %eAIP.AD-2.24.qname;)">
<!ELEMENT %eAIP.Aerodrome.qname; %eAIP.Aerodrome.content;>
<!-- Ref attribute is a reference to an Location-definition element -->
<!ATTLIST %eAIP.Aerodrome.qname;
    %eAIP.Section.attrib;
    %eAIP.Updated-ins-del.attrib;
    %eAIP.Toc-include.attrib;
    %eAIP.Reference.attrib;
>
<!-- **** AD 2.1 Aerodrome location indicator and name -->
<!ELEMENT %eAIP.AD-2.1.qname; (%eAIP.Generated-content.mix;)>
<!ATTLIST %eAIP.AD-2.1.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 2.1"
>
<!-- **** AD 2.2 Aerodrome geographical and administrative data -->
<!ELEMENT %eAIP.AD-2.2.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.2.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 2.2"
>
<!-- **** AD 2.3 Operational hours -->
<!ELEMENT %eAIP.AD-2.3.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.3.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 2.3"
>
<!-- **** AD 2.4 Handling services and facilities -->
<!ELEMENT %eAIP.AD-2.4.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.4.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;

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                                %eAIP.Number-fixed.attrib;                "AD 2.4"
>
<!-- **** AD 2.5 Passenger facilities -->
<!ELEMENT %eAIP.AD-2.5.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.5.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 2.5"
>
<!-- **** AD 2.6 Rescue and fire fighting services -->
<!ELEMENT %eAIP.AD-2.6.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.6.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 2.6"
>
<!-- **** AD 2.7 Seasonal availability - clearing -->
<!ELEMENT %eAIP.AD-2.7.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.7.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 2.7"
>
<!-- **** AD 2.8 Aprons, taxiways and check locations/positions data -->
<!ELEMENT %eAIP.AD-2.8.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.8.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 2.8"
>
<!-- **** AD 2.9 Surface movement guidance and control system and markings -->
<!ELEMENT %eAIP.AD-2.9.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.9.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 2.9"
>
<!-- **** AD 2.10 Aerodrome obstacles -->
<!ELEMENT %eAIP.AD-2.10.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.10.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 2.10"
>
<!-- **** AD 2.11 Meteorological information provided -->
<!ELEMENT %eAIP.AD-2.11.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.11.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 2.11"
>
<!-- **** AD 2.12 Runway physical characteristics -->
<!ELEMENT %eAIP.AD-2.12.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.12.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 2.12"
>
<!-- **** AD 2.13 Declared distances -->
<!ELEMENT %eAIP.AD-2.13.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.13.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 2.13"
>
<!-- **** AD 2.14 Approach and runway lighting -->
<!ELEMENT %eAIP.AD-2.14.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.14.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 2.14"
>
<!-- **** AD 2.15 Other lighting, secondary power supply -->

```

```

<!ELEMENT %eAIP.AD-2.15.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.15.qname; %eAIP.Section.attrib;
          %eAIP.Toc-include.attrib;
          %eAIP.Number-fixed.attrib;          "AD 2.15"
>
<!-- **** AD 2.16 Helicopter landing area -->
<!ELEMENT %eAIP.AD-2.16.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.16.qname; %eAIP.Section.attrib;
          %eAIP.Toc-include.attrib;
          %eAIP.Number-fixed.attrib;          "AD 2.16"
>
<!-- **** AD 2.17 Air traffic services airspace -->
<!ELEMENT %eAIP.AD-2.17.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.17.qname; %eAIP.Section.attrib;
          %eAIP.Toc-include.attrib;
          %eAIP.Number-fixed.attrib;          "AD 2.17"
>
<!-- **** AD 2.18 Air traffic services communication facilities -->
<!ELEMENT %eAIP.AD-2.18.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.18.qname; %eAIP.Section.attrib;
          %eAIP.Toc-include.attrib;
          %eAIP.Number-fixed.attrib;          "AD 2.18"
>
<!-- **** AD 2.19 Radio navigation and landing aids -->
<!ELEMENT %eAIP.AD-2.19.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.19.qname; %eAIP.Section.attrib;
          %eAIP.Toc-include.attrib;
          %eAIP.Number-fixed.attrib;          "AD 2.19"
>
<!-- **** AD 2.20 Local traffic regulations -->
<!ELEMENT %eAIP.AD-2.20.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.20.qname; %eAIP.Section.attrib;
          %eAIP.Toc-include.attrib;
          %eAIP.Number-fixed.attrib;          "AD 2.20"
>
<!-- **** AD 2.21 Noise abatement procedures -->
<!ELEMENT %eAIP.AD-2.21.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.21.qname; %eAIP.Section.attrib;
          %eAIP.Toc-include.attrib;
          %eAIP.Number-fixed.attrib;          "AD 2.21"
>
<!-- **** AD 2.22 Flight procedures -->
<!ELEMENT %eAIP.AD-2.22.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.22.qname; %eAIP.Section.attrib;
          %eAIP.Toc-include.attrib;
          %eAIP.Number-fixed.attrib;          "AD 2.22"
>
<!-- **** AD 2.23 Additional information -->
<!ELEMENT %eAIP.AD-2.23.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.23.qname; %eAIP.Section.attrib;
          %eAIP.Toc-include.attrib;
          %eAIP.Number-fixed.attrib;          "AD 2.23"
>
<!-- **** AD 2.24 Charts related to an aerodrome -->
<!ELEMENT %eAIP.AD-2.24.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-2.24.qname; %eAIP.Section.attrib;
          %eAIP.Toc-include.attrib;
          %eAIP.Number-fixed.attrib;          "AD 2.24"
>
<!-- ***** AD 3 ***** -->
<!-- AD 3. HELIPORTS -->
<!ENTITY % eAIP.AD-3.content "(%eAIP.Title.qname;, %eAIP.Heliport.qname;+)">
<!ELEMENT %eAIP.AD-3.qname; %eAIP.AD-3.content;>

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<!ATTLIST %eAIP.AD-3.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 3"
>
<!ENTITY % eAIP.Heliport.content "(%eAIP.Title.qname;, %eAIP.AD-3.1.qname;,
%eAIP.AD-3.2.qname;, %eAIP.AD-3.3.qname;, %eAIP.AD-3.4.qname;, %eAIP.AD-3.5.qname;,
%eAIP.AD-3.6.qname;, %eAIP.AD-3.7.qname;, %eAIP.AD-3.8.qname;, %eAIP.AD-3.9.qname;,
%eAIP.AD-3.10.qname;, %eAIP.AD-3.11.qname;, %eAIP.AD-3.12.qname;, %eAIP.AD-3.13.qname;,
%eAIP.AD-3.14.qname;, %eAIP.AD-3.15.qname;, %eAIP.AD-3.16.qname;, %eAIP.AD-3.17.qname;,
%eAIP.AD-3.18.qname;, %eAIP.AD-3.19.qname;, %eAIP.AD-3.20.qname;, %eAIP.AD-3.21.qname;,
%eAIP.AD-3.22.qname;, %eAIP.AD-3.23.qname;)">
<!ELEMENT %eAIP.Heliport.qname; %eAIP.Heliport.content;>
<!ATTLIST %eAIP.Heliport.qname;
    %eAIP.Section.attrib;
    %eAIP.Updated-ins-del.attrib;
    %eAIP.Toc-include.attrib;
    %eAIP.Reference.attrib;
>
<!-- **** AD 3.1 Heliport location indicator and name -->
<!ELEMENT %eAIP.AD-3.1.qname; (%eAIP.Generated-content.mix;)>
<!ATTLIST %eAIP.AD-3.1.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 3.1"
>
<!-- **** AD 3.2 Heliport geographical and administrative data -->
<!ELEMENT %eAIP.AD-3.2.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.2.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 3.2"
>
<!-- **** AD 3.3 Operational hours -->
<!ELEMENT %eAIP.AD-3.3.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.3.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 3.3"
>
<!-- **** AD 3.4 Handling services and facilities -->
<!ELEMENT %eAIP.AD-3.4.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.4.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 3.4"
>
<!-- **** AD 3.5 Passenger facilities -->
<!ELEMENT %eAIP.AD-3.5.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.5.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 3.5"
>
<!-- **** AD 3.6 Rescue and fire fighting services -->
<!ELEMENT %eAIP.AD-3.6.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.6.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 3.6"
>
<!-- **** AD 3.7 Seasonal availability - clearing -->
<!ELEMENT %eAIP.AD-3.7.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.7.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                "AD 3.7"
>
<!-- **** AD 3.8 Aprons, taxiways and check locations/positions data -->
<!ELEMENT %eAIP.AD-3.8.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.8.qname; %eAIP.Section.attrib;

```

```

                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "AD 3.8"
>
<!-- **** AD 3.9 Markings and markers -->
<!ELEMENT %eAIP.AD-3.9.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.9.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "AD 3.9"
>
<!-- **** AD 3.10 Heliport obstacles -->
<!ELEMENT %eAIP.AD-3.10.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.10.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "AD 3.10"
>
<!-- **** AD 3.11 Meteorological information provided -->
<!ELEMENT %eAIP.AD-3.11.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.11.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "AD 3.11"
>
<!-- **** AD 3.12 Heliport data -->
<!ELEMENT %eAIP.AD-3.12.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.12.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "AD 3.12"
>
<!-- **** AD 3.13 Declared distances -->
<!ELEMENT %eAIP.AD-3.13.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.13.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "AD 3.13"
>
<!-- **** AD 3.14 Approach and FATO lighting -->
<!ELEMENT %eAIP.AD-3.14.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.14.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "AD 3.14"
>
<!-- **** AD 3.15 Other lighting, secondary power supply -->
<!ELEMENT %eAIP.AD-3.15.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.15.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "AD 3.15"
>
<!-- **** AD 3.16 Air traffic services airspace -->
<!ELEMENT %eAIP.AD-3.16.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.16.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "AD 3.16"
>
<!-- **** AD 3.17 Air traffic services communication facilities -->
<!ELEMENT %eAIP.AD-3.17.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.17.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "AD 3.17"
>
<!-- **** AD 3.18 Radio navigation and landing aids -->
<!ELEMENT %eAIP.AD-3.18.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.18.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;                                "AD 3.18"
>

```

```

<!-- **** AD 3.19 Local traffic regulations -->
<!ELEMENT %eAIP.AD-3.19.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.19.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "AD 3.19"
>
<!-- **** AD 3.20 Noise abatement procedures -->
<!ELEMENT %eAIP.AD-3.20.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.20.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "AD 3.20"
>
<!-- **** AD 3.21 Flight procedures -->
<!ELEMENT %eAIP.AD-3.21.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.21.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "AD 3.21"
>
<!-- **** AD 3.22 Additional information -->
<!ELEMENT %eAIP.AD-3.22.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.22.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "AD 3.22"
>
<!-- **** AD 3.23 Charts related to a heliport -->
<!ELEMENT %eAIP.AD-3.23.qname; (%eAIP.Section.mix;)>
<!ATTLIST %eAIP.AD-3.23.qname; %eAIP.Section.attrib;
                                %eAIP.Toc-include.attrib;
                                %eAIP.Number-fixed.attrib;          "AD 3.23"
>

```

## C.10. eAIP-block.mod

```

<!-- eAIP Block Elements module ***** -->
<!-- file: eAIP-block.mod
      Version: 1.1.0
      Date: 10 February 2006

      Copyright (c) 2000-2002 EUROCONTROL, all rights reserved.
      This work is subject to the license provided in the file LICENSE.txt.

      This file is part of eAIP.dtd.
      *****
-->
<!-- eAIP Block Elements Module

      This module defines the block elements of an eAIP XML document

-->
<!-- ***** -->
<!-- Address elements -->
<!ENTITY % eAIP.Address.content "(%eAIP.Address-part.qname;+)">
<!ELEMENT %eAIP.Address.qname; %eAIP.Address.content;>
<!ATTLIST %eAIP.Address.qname;
          %eAIP.Id.attrib;
          %eAIP.Updated-ins-del.attrib;
          %eAIP.Common.attrib;
>
<!ENTITY % eAIP.Address-part.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Address-part.qname; %eAIP.Address-part.content;>
<!ATTLIST %eAIP.Address-part.qname;
          %eAIP.Id.attrib;
          Type (Post | Phone | Fax | Telex | SITA | AFS | Email | URL) #REQUIRED

```

```

xml:lang CDATA #IMPLIED
%eAIP.Updated-ins-del.attrib;
%eAIP.Common.attrib;
>
<!-- add our attributes to the default attribute list for div -->
<!ATTLIST %div.qname; %eAIP.Number.attrib; #IMPLIED
%eAIP.Remarks.attrib;
%eAIP.Updated-ins-del.attrib;
>
<!ATTLIST %p.qname;
%eAIP.Updated-ins-del.attrib;
>
<!-- Title elements appear at a range of levels in the heirachy -->
<!ENTITY % eAIP.Title.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Title.qname; %eAIP.Title.content;>
<!ATTLIST %eAIP.Title.qname;
%eAIP.Id.attrib;
%eAIP.Common.attrib;
Updated CDATA #FIXED 'No'
>
<!-- add our Amendments-related attributes to some XHTML elements -->
<!ENTITY % eAIP.Amdt-xhtml.attrib "
%eAIP.Updated-ins-del.attrib;
%eAIP.Remarks.attrib;
">
<!ATTLIST %ol.qname;
%eAIP.Amdt-xhtml.attrib;
>
<!ATTLIST %ul.qname;
%eAIP.Amdt-xhtml.attrib;
>
<!ATTLIST %li.qname;
%eAIP.Amdt-xhtml.attrib;
>
<!ATTLIST %table.qname;
%eAIP.Amdt-xhtml.attrib;
>
<!ATTLIST %caption.qname;
%eAIP.Amdt-xhtml.attrib;
>
<!ATTLIST %thead.qname;
%eAIP.Amdt-xhtml.attrib;
>
<!ATTLIST %tfoot.qname;
%eAIP.Amdt-xhtml.attrib;
>
<!ATTLIST %tbody.qname;
%eAIP.Amdt-xhtml.attrib;
>
<!ATTLIST %tr.qname;
%eAIP.Amdt-xhtml.attrib;
>
<!ATTLIST %th.qname;
%eAIP.Amdt-xhtml.attrib;
>
<!ATTLIST %td.qname;
%eAIP.Amdt-xhtml.attrib;
>
<!-- the following attributes need to be defined because of lack of full CSS2
support in current browsers -->
<!ATTLIST %li.qname;
value %Number.datatype; #IMPLIED
>

```

```

<!ATTLIST %ol.qname;
  start %Number.datatype; #IMPLIED
>
<!ATTLIST %table.qname;
  align (left | center | right) #IMPLIED
>
<!-- *****
      Graphic elements
-->
<!ENTITY % eAIP.Figure.content "(%eAIP.Title.qname;?, %eAIP.Graphic-file.qname;,
%eAIP.Graphic-file.qname;?)">
<!ELEMENT %eAIP.Figure.qname; %eAIP.Figure.content;>
<!ATTLIST %eAIP.Figure.qname;
  %eAIP.Id.attrib;
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
>
<!-- Graphics are simply external files in an specified format -->
<!-- @Effective-date removed: use @Updated-ref instead to refer to the effective
date of an Amendment -->
<!ELEMENT %eAIP.Graphic-file.qname; EMPTY>
<!ATTLIST %eAIP.Graphic-file.qname;
  %eAIP.Id.attrib;
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
  %eAIP.xlink.attrib;
  Type CDATA #REQUIRED
  Width CDATA #IMPLIED
  Height CDATA #IMPLIED
  Page-name CDATA #IMPLIED
>
<!-- *****
      Special elements
-->
<!-- The "<Not-applicable>" element is for sections that are not relevant to an
electronic AIP -->
<!-- removed as of DTD version 1.0.3
<!ELEMENT %eAIP.Not-applicable.qname; EMPTY>
<!ATTLIST %eAIP.Not-applicable.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
>
-->
<!-- The "<Generated>" element holds the table of contents which is generated by
the Application -->
<!ELEMENT %eAIP.Generated.qname; EMPTY>
<!ATTLIST %eAIP.Generated.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
>
<!-- The <NIL/> element marks a mandatory section as being intentionally left blank
New NIL definition as of December 2003:
@Reason has the following meanings:
- "Not-available": data exist but was not available at publication time
- "Not-applicable": no data exist because it is not relevant in the context
- "In-preparation": data exist and will be available in the near future
- "Electronic": data is not relevant to an electronic AIP (ex: GEN-0.5 if the
AIP production, including graphics, is fully automatic)
-->
<!ELEMENT %eAIP.NIL.qname; EMPTY>
<!ATTLIST %eAIP.NIL.qname;
  %eAIP.Id.attrib;
  %eAIP.Updated-ins-del.attrib;

```

```

%eAIP.Common.attrib;
Reason (Not-available | Not-applicable | In-preparation | Electronic)
"Not-applicable"
>

```

## C.11. eAIP-inline.mod

```

<!-- eAIP Inline Elements module ***** -->
<!-- file: eAIP-inline.mod
      Version: 1.1.0
      Date: 10 February 2006

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      This work is subject to the license provided in the file LICENSE.txt.

      This file is part of eAIP.dtd.
      *****
-->
<!-- eAIP Inline Elements Module

      This module defines the Inline elements of an eAIP XML document

-->
<!-- Abbreviation: reference to an Abbreviation-description element in GEN-2.2 -->
<!ELEMENT %eAIP.Abbreviation.qname; EMPTY>
<!ATTLIST %eAIP.Abbreviation.qname;
      %eAIP.Id.attrib;
      %eAIP.Updated-ins-del.attrib;
      %eAIP.Reference.attrib;
      %eAIP.Common.attrib;
>
<!-- Location: reference to an (ICAO) location indicator in GEN-2.4 -->
<!-- v1.0.3: removed @Type, deprecated -->
<!ELEMENT %eAIP.Location.qname; EMPTY>
<!ATTLIST %eAIP.Location.qname;
      %eAIP.Id.attrib;
      %eAIP.Updated-ins-del.attrib;
      %eAIP.Reference.attrib;
      %eAIP.Common.attrib;
>
<!-- <Date-time> is to record dates and/or times and may be in either of two formats:
      Local:      E.g. 7.20p.m. on 24<Superscript>th</Superscript> March 2000
      ISO-8601: 2000-03-24T19:20+01:00 (see http://www.iso.ch/markete/8601.pdf
for details of ISO 8601:1988)
-->
<!ELEMENT %eAIP.Date-time.qname; (%eAIP.Inline.mix;)*>
<!ATTLIST %eAIP.Date-time.qname;
      %eAIP.Id.attrib;
      %eAIP.Updated-ins-del.attrib;
      %eAIP.Common.attrib;
      Format (ISO-8601 | Local) "ISO-8601"
>
<!ATTLIST %a.qname;
      %eAIP.Updated-ins-del.attrib;
>
<!ATTLIST %br.qname;
      %eAIP.Updated-ins-del.attrib;
>
<!ENTITY % cite.content "(%eAIP.Inline.mix;)*">
<!ATTLIST %cite.qname;
      %eAIP.Updated-ins-del.attrib;
>
<!ENTITY % em.content "(%eAIP.Inline.mix;)*">

```

```

<!ATTLIST %em.qname;
  %eAIP.Updated-ins-del.attrib;
>
<!ENTITY % span.content "(%eAIP.Inline.mix;)*">
<!ATTLIST %span.qname;
  %eAIP.Updated-ins-del.attrib;
>
<!ENTITY % strong.content "(%eAIP.Inline.mix;)*">
<!ATTLIST %strong.qname;
  %eAIP.Updated-ins-del.attrib;
>
<!-- Latitude & Longitude -->
<!ENTITY % eAIP.Latitude.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Latitude.qname; %eAIP.Latitude.content;>
<!ATTLIST %eAIP.Latitude.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
>
<!ENTITY % eAIP.Longitude.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Longitude.qname; %eAIP.Longitude.content;>
<!ATTLIST %eAIP.Longitude.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
>

```

## C.12. eAIP-amdt.mod

```

<!-- eAIP Amendments Elements module ***** -->
<!-- file: eAIP-amdt.mod
  Version: 1.1.0
  Date: 10 February 2006

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  This work is subject to the license provided in the file LICENSE.txt.

  This file is part of eAIP.dtd.
  *****
-->
<!-- eAIP Amendments Elements Module

  This module defines the amendments elements of an eAIP XML document
-->
<!-- *****
  Amendments
  These are modifications to existing eAIP material. They can occur in an AIRAC
  cycle or
  independently.
-->

<!ENTITY % eAIP.Amendment.content "((%eAIP.Description.qname;*), (%eAIP.Group.qname;)*)">
<!ELEMENT %eAIP.Amendment.qname; %eAIP.Amendment.content;>
<!ATTLIST %eAIP.Amendment.qname;
  %eAIP.Id-req.attrib;
  Type (Non-AIRAC | AIRAC | Non-listed) "AIRAC"
  Number CDATA #REQUIRED
  Year CDATA #REQUIRED
  Publication-date CDATA #IMPLIED
  %eAIP.Effective-date.attrib;
  %eAIP.Common.attrib;
>

<!ENTITY % eAIP.Group.content "(%eAIP.Description.qname;+)">
<!ELEMENT %eAIP.Group.qname; %eAIP.Group.content;>

```

```

<!ATTLIST e:Group
  %eAIP.Id-req.attrib;
  %eAIP.Common.attrib;
>

<!-- Description contains all information describing a Group in a single language -->
<!ENTITY % eAIP.Description.content "(%eAIP.Title.qname;, %eAIP.Abstract.qname;,
(%Block.mix;)*)">
<!ELEMENT %eAIP.Description.qname; %eAIP.Description.content;>
<!ATTLIST %eAIP.Description.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
>

<!-- Abstract may only contain inline elements, so that it is can be displayed as a
single paragraph,
and it may not contain Inserted and Deleted elements. -->
<!ENTITY % eAIP.Abstract.content "(#PCDATA | %Inline.class;)*">
<!ELEMENT %eAIP.Abstract.qname; %eAIP.Abstract.content;>
<!ATTLIST %eAIP.Abstract.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
>

<!-- The "<Inserted>" and "<Deleted>" elements are used inline to mark changed text.
The "Updated-ref" attribute points at the "id" of a "<Amendment>" element
-->
<!ENTITY % eAIP.Inline-updates.content "(%eAIP.Inline.class;)*">
<!ELEMENT %eAIP.Inserted.qname; %eAIP.Inline-updates.content;>
<!ATTLIST %eAIP.Inserted.qname;
  %eAIP.Id-req.attrib;
  Updated CDATA #FIXED "Inserted"
  %eAIP.Updated-ref.attrib;
  %eAIP.Common.attrib;
>
<!ELEMENT %eAIP.Deleted.qname; %eAIP.Inline-updates.content;>
<!ATTLIST %eAIP.Deleted.qname;
  %eAIP.Id-req.attrib;
  Updated CDATA #FIXED "Deleted"
  %eAIP.Updated-ref.attrib;
  %eAIP.Common.attrib;
>

```

## C.13. eAIP-gentables.mod

```

<!-- eAIP GEN Tables Elements module ***** -->
<!-- file: eAIP-gentables.mod
  Version: 1.1.0
  Date: 10 February 2006

  Copyright (c) 2000-2002 EUROCONTROL, all rights reserved.
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  This file is part of eAIP.dtd.
  *****
-->
<!-- eAIP GEN Tables Elements Module

  This module defines the GEN-related specific elements of an eAIP XML document

-->
<!-- <Abbreviation-description> is used in GEN 2.2 for the full explantion of an
Abbreviation and its meaning.

```

```

-->
<!ELEMENT %eAIP.Abbreviation-description.qname; (%eAIP.Abbreviation-ident.qname; ,
%eAIP.Abbreviation-details.qname;)>
<!ATTLIST %eAIP.Abbreviation-description.qname;
  %eAIP.Id-req.attrib;
  Type (ICAO | Non-standard) "ICAO"
  Speak (normal | spell-out) #IMPLIED
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
>
<!ELEMENT %eAIP.Abbreviation-ident.qname; (#PCDATA)>
<!ATTLIST %eAIP.Abbreviation-ident.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
>
<!ENTITY % eAIP.Abbreviation-details.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Abbreviation-details.qname; %eAIP.Abbreviation-details.content;>
<!ATTLIST %eAIP.Abbreviation-details.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
>
<!-- ***** -->
<!-- GEN-2.4 specific elements -->
<!-- Location-table: a group of Location-definition elements, typically a table -->
<!ENTITY % eAIP.Location-table.content "(%caption.qname;?,
%eAIP.Location-definition.qname;+)">
<!ELEMENT %eAIP.Location-table.qname; %eAIP.Location-table.content;>
<!ATTLIST %eAIP.Location-table.qname;
  %eAIP.Id.attrib;
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
>
<!-- <Location-description> is used in GEN 2.4
  A Type of Non-standard means the Location should not be listed -->
<!ENTITY % eAIP.Location-definition.content "%eAIP.Location-ident.qname;?,
%eAIP.Location-name.qname;">
<!ELEMENT %eAIP.Location-definition.qname; (%eAIP.Location-definition.content;)>
<!ATTLIST %eAIP.Location-definition.qname;
  %eAIP.Id-req.attrib;
  AFS (Yes | No) "Yes"
  Type (ICAO | Non-standard) "ICAO"
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
>
<!ENTITY % eAIP.Location-ident.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Location-ident.qname; %eAIP.Location-ident.content;>
<!ATTLIST %eAIP.Location-ident.qname;
  %eAIP.Id.attrib;
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
>
<!ENTITY % eAIP.Location-name.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Location-name.qname; %eAIP.Location-name.content;>
<!ATTLIST %eAIP.Location-name.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
>

```

## C.14. eAIP-enrtables.mod

```

<!-- eAIP ENR Specific Elements module ***** -->
<!-- file: eAIP-enrtables.mod
  Version: 1.1.0

```

Date: 10 February 2006

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This file is part of eAIP.dtd.

\*\*\*\*\*

```
-->
<!-- eAIP ENR Specific Elements Module
      En-route routing tables
      This is used for Tables ENR 3.1, ENR 3.2, ENR 3.3, ENR 3.4 and ENR 3.5
-->
<!ENTITY % eAIP.Route.content "(%eAIP.Route-designator.qname;, %eAIP.Route-RNP.qname;?,
%eAIP.Route-segment-usage.qname;* , %eAIP.Route-segment-remark.qname;* ,
%eAIP.Significant-point-remark.qname;* , %eAIP.Route-remark.qname;* ,
(%eAIP.Route-segment.qname; | %eAIP.Significant-point-reference.qname;)*">
<!ELEMENT %eAIP.Route.qname; %eAIP.Route.content;>
<!ATTLIST %eAIP.Route.qname;
      %eAIP.Id-req.attrib;
      %eAIP.Updated-ins-del.attrib;
      %eAIP.Common.attrib;
>
<!-- *****
      Route Designation
-->
<!-- Route-designator
      [Display: {1} in tables ENR 3.(1|2|3|4|5)]
-->
<!ENTITY % eAIP.Route-designator.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-designator.qname; %eAIP.Route-designator.content;>
<!ATTLIST %eAIP.Route-designator.qname;
      %eAIP.Id.attrib;
      %eAIP.Common.attrib;
>
<!-- RNP: Required Navigational Performance (gives allowed maximum error in NM)
      [Display: {2} in tables ENR 3.(1|2|3|4|5)]
-->
<!ENTITY % eAIP.Route-RNP.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-RNP.qname; %eAIP.Route-RNP.content;>
<!ATTLIST %eAIP.Route-RNP.qname;
      %eAIP.Id.attrib;
      %eAIP.Updated-ins-del.attrib;
      %eAIP.Common.attrib;
>
<!-- Route usage
      Used to describe the temporal applicability and the levels concerned by
      different types of route usages. As several segments of a route typically have
      the same usage, this information is stored at the level of the route element
      and referred to from each affected segment. For example, several consecutive
      segments may be available in general (NONFUA) between FL310 and FL350,
      and may also be available as CDR1 from FL 390 to FL430 from FRI 17:00 to MON
      07:00.
      Information is given as free text.
      [Display: {21} in tables ENR 3.(1|2|3|4|5)]
-->
<!ENTITY % eAIP.Route-segment-usage.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-usage.qname; %eAIP.Route-segment-usage.content;>
<!ATTLIST %eAIP.Route-segment-usage.qname;
      %eAIP.Id-req.attrib;
      %eAIP.Updated-ins-del.attrib;
      %eAIP.Common.attrib;
>
<!-- Route Segment Remark: remark for a route segment, globally for the route
```

```

    Used by reference by Route-segment-remarks
    [Display: {xref-20} in the remarks column and as {20} at the bottom of the table
    in tables ENR 3.(1|2|3|4|5)
-->
<!ENTITY % eAIP.Route-segment-remark.content "(#PCDATA | %Flow.mix;)*">
<!ELEMENT %eAIP.Route-segment-remark.qname; %eAIP.Route-segment-remark.content;>
<!ATTLIST %eAIP.Route-segment-remark.qname;
    %eAIP.Id.req.attrib;
    %eAIP.Updated-ins-del.attrib;
    %eAIP.Common.attrib;
>
<!-- Significant point remark, globally for the route
    Used by reference by Significant-point-remark-reference.
    [Display: As reference in the last column {xref-6} in tables ENR 3.(1|2|3|4|5) +
    the full text at the bottom of the table {6}]
-->
<!ENTITY % eAIP.Significant-point-remark.content "(#PCDATA | %Flow.mix;)*">
<!ELEMENT %eAIP.Significant-point-remark.qname; %eAIP.Significant-point-remark.content;>
<!ATTLIST %eAIP.Significant-point-remark.qname;
    %eAIP.Id.req.attrib;
    %eAIP.Updated-ins-del.attrib;
    %eAIP.Common.attrib;
>
<!-- Route remarks
    [Display: {3} in tables ENR 3.(1|2|3|4|5)]
-->
<!ENTITY % eAIP.Route-remark.content "(#PCDATA | %Flow.mix;)*">
<!ELEMENT %eAIP.Route-remark.qname; %eAIP.Route-remark.content;>
<!ATTLIST %eAIP.Route-remark.qname;
    %eAIP.Id.attrib;
    %eAIP.Updated-ins-del.attrib;
    %eAIP.Common.attrib;
>
<!-- *****
    Significant point reference
    Ref attribute refers to the id of either a <Designated-point> or a <Navaid> element
        Attribute "Ref" is used to retrieve information displayed as {5.1}, {5.2},
        {5.3}, {5.4} and {5.5}
        {5.1} = Navaid-name (nothing for a Designated-point)
        {5.2} = Attribute Type of Navaid element (nothing for a Designated-point)
        {5.3} = Navaid-ident or Designated-point-ident
        {5.4} = Navaid Latitude or Designated-point Latitude
        {5.5} = Navaid Longitude or Designated-point Longitude
    ]
-->
<!ENTITY % eAIP.Significant-point-reference.content "(%eAIP.Significant-point-ATC.qname;,
    %eAIP.Significant-point-description.qname;?, %eAIP.Navaid-indication.qname;*,
    %eAIP.Significant-point-remark-reference.qname;)*">
<!ELEMENT %eAIP.Significant-point-reference.qname;
    %eAIP.Significant-point-reference.content;>
<!ATTLIST %eAIP.Significant-point-reference.qname;
    %eAIP.Id.attrib;
    %eAIP.Common.attrib;
    %eAIP.Reference.attrib;
    %eAIP.Updated-ins-del.attrib;
>
<!-- Significant-point-ATC - legal values: Compulsory | Request | No-report
Content model should include NMTOKEN instead of PCDATA if that was allowed for a DTD.
-->
<!ENTITY % eAIP.Significant-point-ATC.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Significant-point-ATC.qname; %eAIP.Significant-point-ATC.content;>
<!ATTLIST %eAIP.Significant-point-ATC.qname;
    %eAIP.Id.attrib;

```

```

    %eAIP.Common.attrib;
>
<!-- Significant-point-description: additional text describing a Significant-point -->
<!ENTITY % eAIP.Significant-point-description.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Significant-point-description.qname;
%eAIP.Significant-point-description.content;>
<!ATTLIST %eAIP.Significant-point-description.qname;
    %eAIP.Id.attrib;
    %eAIP.Updated-ins-del.attrib;
    %eAIP.Common.attrib;
>
<!-- Significant point remark reference: one reference to one Significant-point-remark
element
    [Display: As reference in the last column {xref-6} in tables ENR 3.(1|2|3|4|5) +
the full text at the bottom of the table {6}]
-->
<!ELEMENT %eAIP.Significant-point-remark-reference.qname; EMPTY>
<!ATTLIST %eAIP.Significant-point-remark-reference.qname;
    %eAIP.Id.attrib;
    %eAIP.Common.attrib;
    %eAIP.Reference.attrib;
    %eAIP.Updated-ins-del.attrib;
>
<!-- *****
Navigation Aid Indicator
Ref attribute refers to the Id of a <Navaid> element
[Display: {7.x}, only for RNAV-routes, like ENR 3.(3|5)]
-->
<!ELEMENT %eAIP.Navaid-indication.qname; (%eAIP.Navaid-indication-radial.qname; ,
%eAIP.Navaid-indication-distance.qname;)>
<!ATTLIST %eAIP.Navaid-indication.qname;
    %eAIP.Id.attrib;
    %eAIP.Common.attrib;
    %eAIP.Reference.attrib;
    %eAIP.Updated-ins-del.attrib;
>
<!-- Navigation-indication-radial
    [Display: {7.2} in tables ENR 3.(3|5)]
-->
<!ENTITY % eAIP.Navaid-indication-radial.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Navaid-indication-radial.qname; %eAIP.Navaid-indication-radial.content;>
<!ATTLIST %eAIP.Navaid-indication-radial.qname;
    %eAIP.Id.attrib;
    %eAIP.Common.attrib;
>
<!-- Navigation-indication-distance
    [Display: {7.3} in tables ENR 3.(3|5)]
-->
<!ENTITY % eAIP.Navaid-indication-distance.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Navaid-indication-distance.qname;
%eAIP.Navaid-indication-distance.content;>
<!ATTLIST %eAIP.Navaid-indication-distance.qname;
    %eAIP.Id.attrib;
    %eAIP.Common.attrib;
>
<!-- *****
Route Segment
-->
<!ENTITY % eAIP.Route-segment-track.content "
%eAIP.Route-segment-true-track.qname;?, %eAIP.Route-segment-reverse-true-track.qname;?,
%eAIP.Route-segment-mag-track.qname;?, %eAIP.Route-segment-reverse-mag-track.qname;?">
<!ENTITY % eAIP.Route-segment.content "(%eAIP.Route-segment-RNP.qname;?,
%eAIP.Route-segment-track.content; , %eAIP.Route-segment-length.qname;?,

```

```

%eAIP.Route-segment-width.qname;?, %eAIP.Route-segment-upper.qname;?,
%eAIP.Route-segment-lower.qname;?, %eAIP.Route-segment-minimum.qname;?,
%eAIP.Route-segment-lower-override.qname;?, %eAIP.Route-segment-ATC.qname;?,
%eAIP.Route-segment-airspace-class.qname;?, %eAIP.Route-segment-COP.qname;?,
%eAIP.Route-segment-usage-reference.qname;* ,
%eAIP.Route-segment-remark-reference.qname;*)">
<!ELEMENT %eAIP.Route-segment.qname; %eAIP.Route-segment.content;>
<!ATTLIST %eAIP.Route-segment.qname;
  %eAIP.Id.attrib;
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
>
<!-- Route Segment: Required Navigational Performance for the route segment
      [Displayed: {8} in tables ENR 3.(1|2|3|4|5)]
-->
<!ENTITY % eAIP.Route-segment-RNP.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-RNP.qname; %eAIP.Route-segment-RNP.content;>
<!ATTLIST %eAIP.Route-segment-RNP.qname;
  %eAIP.Id.attrib;
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
>
<!-- Route Segment: Upper Flight limits
      Display: {11} in tables ENR 3.(1|2|3|4|5)]
-->
<!ENTITY % eAIP.Route-segment-upper.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-upper.qname; %eAIP.Route-segment-upper.content;>
<!ATTLIST %eAIP.Route-segment-upper.qname;
  %eAIP.Id.attrib;
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
>
<!-- Route Segment: Lower Flight limits
      For example, FL50 or 2000 M ALT
      [Display: {12} in tables ENR 3.(1|2|3|4|5)]
-->
<!ENTITY % eAIP.Route-segment-lower.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-lower.qname; %eAIP.Route-segment-lower.content;>
<!ATTLIST %eAIP.Route-segment-lower.qname;
  %eAIP.Id.attrib;
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
>
<!-- Route Segment: Minimum flight altitude
      [Display: {13} in tables ENR 3.1]
-->
<!ENTITY % eAIP.Route-segment-minimum.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-minimum.qname; %eAIP.Route-segment-minimum.content;>
<!ATTLIST %eAIP.Route-segment-minimum.qname;
  %eAIP.Id.attrib;
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
>
<!-- Route Segment: Lower over-ride
      Sometimes, the lower limit of the segment is specified as: "FL30 or 300 M
      above the highest obstacle in the area;"
      This gives an override on the minimum flight altitude
      [Display: {14} in tables ENR 3.1]
-->
<!ENTITY % eAIP.Route-segment-lower-override.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-lower-override.qname;
  %eAIP.Route-segment-lower-override.content;>
<!ATTLIST %eAIP.Route-segment-lower-override.qname;

```

```

%eAIP.Id.attrib;
%eAIP.Updated-ins-del.attrib;
%eAIP.Common.attrib;
>
<!-- Route Segment: the width of the segment: "Lateral limit"
      [Display: {15} in tables ENR 3.(1|2)
-->
<!ENTITY % eAIP.Route-segment-width.content "(%AIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-width.qname; %eAIP.Route-segment-width.content;>
<!ATTLIST %eAIP.Route-segment-width.qname;
      %eAIP.Id.attrib;
      %eAIP.Updated-ins-del.attrib;
      %eAIP.Common.attrib;
>
<!-- Route Segment: True tracking
      [Display: {9} in tables ENR 3.(1|2|3|4|5)
-->
<!ENTITY % eAIP.Route-segment-true-track.content "(%AIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-true-track.qname;
%eAIP.Route-segment-true-track.content;>
<!ATTLIST %eAIP.Route-segment-true-track.qname;
      %eAIP.Id.attrib;
      %eAIP.Updated-ins-del.attrib;
      %eAIP.Common.attrib;
>
<!-- Route Segment: Reverse true tracking
      [Display: {10} in tables ENR 3.(1|2|3|4|5)
-->
<!ENTITY % eAIP.Route-segment-true-track.content "(%AIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-reverse-true-track.qname;
%eAIP.Route-segment-true-track.content;>
<!ATTLIST %eAIP.Route-segment-reverse-true-track.qname;
      %eAIP.Id.attrib;
      %eAIP.Updated-ins-del.attrib;
      %eAIP.Common.attrib;
>
<!-- Route Segment: Magnetic tracking
      [Display: {9} in tables ENR 3.(1|2|3|4|5)
-->
<!ENTITY % eAIP.Route-segment-mag-track.content "(%AIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-mag-track.qname; %eAIP.Route-segment-mag-track.content;>
<!ATTLIST %eAIP.Route-segment-mag-track.qname;
      %eAIP.Id.attrib;
      %eAIP.Updated-ins-del.attrib;
      %eAIP.Common.attrib;
>
<!-- Route Segment: Reverse magnetic tracking
      [Display: {10} in tables ENR 3.(1|2|3|4|5)
-->
<!ENTITY % eAIP.Route-segment-reverse-mag-track.content "(%AIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-reverse-mag-track.qname;
%eAIP.Route-segment-reverse-mag-track.content;>
<!ATTLIST %eAIP.Route-segment-reverse-mag-track.qname;
      %eAIP.Id.attrib;
      %eAIP.Updated-ins-del.attrib;
      %eAIP.Common.attrib;
>
<!-- Route Segment: Distance: the length of the segment
      [Display: as {16} in tables ENR 3.(1|2|3|4|5)
-->
<!ENTITY % eAIP.Route-segment-length.content "(%AIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-length.qname; %eAIP.Route-segment-length.content;>
<!ATTLIST %eAIP.Route-segment-length.qname;

```

```

%eAIP.Id.attrib;
%eAIP.Updated-ins-del.attrib;
%eAIP.Common.attrib;
>
<!-- Route Segment: (ATC) Controlling Unit responsible
      [Display: {18} in tables ENR 3.(1|2|3|4|5)
-->
<!ENTITY % eAIP.Route-segment-ATC.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-ATC.qname; %eAIP.Route-segment-ATC.content;>
<!ATTLIST %eAIP.Route-segment-ATC.qname;
  %eAIP.Id.attrib;
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
>
<!-- Route Segment: Air Classification of the segment
      [Display: {17} in tables ENR 3.(1|2|3|4|5)
-->
<!ENTITY % eAIP.Route-segment-airspace-class.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-airspace-class.qname;
%eAIP.Route-segment-airspace-class.content;>
<!ATTLIST %eAIP.Route-segment-airspace-class.qname;
  %eAIP.Id.attrib;
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
>
<!-- Route Segment: The distance from the point of beginning of the route-segment
until the "Change-Over-Point"
      [Display: {19} in tables ENR 3.(1|2)
-->
<!ENTITY % eAIP.Route-segment-COP.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-COP.qname; %eAIP.Route-segment-COP.content;>
<!ATTLIST %eAIP.Route-segment-COP.qname;
  %eAIP.Id.attrib;
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
>
<!-- Route Segment: remarks for the route segment, refers to one Route-segment-remark
element [Display: {xref-20} in the remarks column and as {20} at the bottom
of the table in tables ENR 3.(1|2|3|4|5)
-->
<!ELEMENT %eAIP.Route-segment-remark-reference.qname; EMPTY>
<!ATTLIST %eAIP.Route-segment-remark-reference.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
  %eAIP.Reference.attrib;
  %eAIP.Updated-ins-del.attrib;
>
<!-- Route Segment: Usage
      Used to describe the temporal applicability of this type of usage and the
      levels concerned. For example, a route segment that is available in general (NONFUA)
      between FL310 and FL350, but is also available as CDR1 from FL 390 to FL430 from FRI
      17:00 to MON 07:00. Ref: reference towards a Route-usage id that is used to hold the
      actual information. [Display: {xref-21} in the remarks column and {21} at the top of
      the table in tables ENR 3.(1|2|3|4|5) Children Direction and Level-type are used to
      create the information displayed as {22} in tables ENR 3.(1|2|3|4|5)
      Content model of RSU-direction and -level-type should include NMTOKEN instead of PCDATA,
      if that was allowed in a DTD.
-->
<!ENTITY % eAIP.Route-segment-usage-reference.content "(
%eAIP.Route-segment-usage-direction.qname; ,
%eAIP.Route-segment-usage-level-type.qname; ,
%eAIP.Route-segment-usage-maximal-level.qname;?,
%eAIP.Route-segment-usage-minimal-level.qname;?)">

```

```

<!ELEMENT %eAIP.Route-segment-usage-reference.qname;
%eAIP.Route-segment-usage-reference.content;>
<!ATTLIST %eAIP.Route-segment-usage-reference.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
  %eAIP.Reference.attrib;
  %eAIP.Updated-ins-del.attrib;
>
<!-- Route segment usage direction - legal values: Forwards | Backwards -->
<!ENTITY % eAIP.Route-segment-usage-direction.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-usage-direction.qname;
%eAIP.Route-segment-usage-direction.content;>
<!ATTLIST %eAIP.Route-segment-usage-direction.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
>
<!-- Route segment usage level type - legal values: Odd | Even -->
<!ENTITY % eAIP.Route-segment-usage-level-type.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-usage-level-type.qname;
%eAIP.Route-segment-usage-level-type.content;>
<!ATTLIST %eAIP.Route-segment-usage-level-type.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
>
<!-- Route segment usage minimal level - Minimal IFR flight level -->
<!ENTITY % eAIP.Route-segment-usage-minimal-level.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-usage-minimal-level.qname;
%eAIP.Route-segment-usage-minimal-level.content;>
<!ATTLIST %eAIP.Route-segment-usage-minimal-level.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
  %eAIP.Updated-ins-del.attrib;
>
<!-- Route segment usage maximal level - Maximal IFR flight level -->
<!ENTITY % eAIP.Route-segment-usage-maximal-level.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Route-segment-usage-maximal-level.qname;
%eAIP.Route-segment-usage-maximal-level.content;>
<!ATTLIST %eAIP.Route-segment-usage-maximal-level.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
  %eAIP.Updated-ins-del.attrib;
>
<!-- *****
Designated points
These are listed in table ENR 4.4 (old ENR 4.3, which is now GNSS)
-->
<!ENTITY % eAIP.Designated-point-table.content "(%eAIP.Designated-point.qname;)+">
<!ELEMENT %eAIP.Designated-point-table.qname; %eAIP.Designated-point-table.content;>
<!ATTLIST %eAIP.Designated-point-table.qname;
  %eAIP.Id.attrib;
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
>
<!ENTITY % eAIP.Designated-point.content "(%eAIP.Designated-point-ident.qname;,
%eAIP.Latitude.qname;, %eAIP.Longitude.qname;, %eAIP.SID-STAR.qname;)*">
<!ELEMENT %eAIP.Designated-point.qname; %eAIP.Designated-point.content;>
<!ATTLIST %eAIP.Designated-point.qname;
  %eAIP.Id-req.attrib;
  Listed (Yes | No) "Yes"
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
>
<!-- Designated point: Five character identifier -->

```

```

<!ENTITY % eAIP.Designated-point-ident.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Designated-point-ident.qname; %eAIP.Designated-point-ident.content;>
<!ATTLIST %eAIP.Designated-point-ident.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
>
<!-- SID/STAR procedures -->
<!ENTITY % eAIP.SID-STAR.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.SID-STAR.qname; %eAIP.SID-STAR.content;>
<!ATTLIST %eAIP.SID-STAR.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
  %eAIP.Updated-ins-del.attrib;
>

<!-- *****
Navigation Aid
These are listed in Table ENR 4.1
The Id attribute allows them to be referred to in table ENR 3.3
-->
<!ENTITY % eAIP.Navaid-table.content "(%eAIP.Navaid.qname;)+">
<!ELEMENT %eAIP.Navaid-table.qname; %eAIP.Navaid-table.content;>
<!ATTLIST %eAIP.Navaid-table.qname;
  %eAIP.Id.attrib;
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
>
<!ENTITY % eAIP.Navaid.content "(%eAIP.Navaid-type.qname;, %eAIP.Navaid-name.qname;,
%eAIP.Navaid-ident.qname;, %eAIP.Navaid-magnetic-variation.qname;?,
%eAIP.Navaid-declination.qname;?, %eAIP.Navaid-frequency.qname;,
%eAIP.Navaid-hours.qname;,
%eAIP.Latitude.qname;, %eAIP.Longitude.qname;, %eAIP.Navaid-elevation.qname;,
%eAIP.Navaid-remarks.qname;)">
<!ELEMENT %eAIP.Navaid.qname; %eAIP.Navaid.content;>
<!ATTLIST %eAIP.Navaid.qname;
  %eAIP.Id-req.attrib;
  Listed (Yes | No) "Yes"
  %eAIP.Updated-ins-del.attrib;
  %eAIP.Common.attrib;
>
<!-- Navaid Type
[Display: {5.2} = Type of Navaid element (nothing for a Designated-point) in
tables ENR 3.(1|2|3|4|5)
-->
<!ENTITY % eAIP.Navaid-type.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Navaid-type.qname; %eAIP.Navaid-type.content;>
<!ATTLIST %eAIP.Navaid-type.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
>
<!-- Navigation Aid: Name of Station (VOR/VAR)
[Display: {5.1} = Navaid-name (nothing for a Designated-point) in
tables ENR 3.(1|2|3|4|5)
-->
<!ENTITY % eAIP.Navaid-name.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Navaid-name.qname; %eAIP.Navaid-name.content;>
<!ATTLIST %eAIP.Navaid-name.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
>
<!-- Navigation Aid: Three character Identifier
[Display: {5.3} = Navaid-ident or Designated-point-ident in tables ENR 3.(1|2|3|4|5)
{7.1} = Navaid-ident in ENR 3.(3|5)

```

```

]
-->
<!ENTITY % eAIP.Navaid-ident.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Navaid-ident.qname; %eAIP.Navaid-ident.content;>
<!ATTLIST %eAIP.Navaid-ident.qname;
    %eAIP.Id.attrib;
    %eAIP.Common.attrib;
>
<!-- Navigation Aid: magnetic variation and year, ex: 1Â°30'W/2000 -->
<!ENTITY % eAIP.Navaid-magnetic-variation.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Navaid-magnetic-variation.qname; %eAIP.Navaid-magnetic-variation.content;>
<!ATTLIST %eAIP.Navaid-magnetic-variation.qname;
    %eAIP.Id.attrib;
    %eAIP.Updated-ins-del.attrib;
    %eAIP.Common.attrib;
>
<!-- Navigation Aid: magnetic declination ex: 0.2'W/year -->
<!ENTITY % eAIP.Navaid-declination.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Navaid-declination.qname; %eAIP.Navaid-declination.content;>
<!ATTLIST %eAIP.Navaid-declination.qname;
    %eAIP.Id.attrib;
    %eAIP.Updated-ins-del.attrib;
    %eAIP.Common.attrib;
>
<!-- Navigation Aid: Frequency and Channel -->
<!ENTITY % eAIP.Navaid-frequency.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Navaid-frequency.qname; %eAIP.Navaid-frequency.content;>
<!ATTLIST %eAIP.Navaid-frequency.qname;
    %eAIP.Id.attrib;
    %eAIP.Common.attrib;
>
<!-- Navigation Aid: Hours of Operation -->
<!ENTITY % eAIP.Navaid-hours.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Navaid-hours.qname; %eAIP.Navaid-hours.content;>
<!ATTLIST %eAIP.Navaid-hours.qname;
    %eAIP.Id.attrib;
    %eAIP.Common.attrib;
>
<!-- Navigation Aid: Elevation of DME Antenna
    [Display: {7.4} in ENR 3.(3|5) Navaid-elevation for nav aids of type VOR-DME]
-->
<!ENTITY % eAIP.Navaid-elevation.content "(%eAIP.Inline.mix;)*">
<!ELEMENT %eAIP.Navaid-elevation.qname; %eAIP.Navaid-elevation.content;>
<!ATTLIST %eAIP.Navaid-elevation.qname;
    %eAIP.Id.attrib;
    %eAIP.Common.attrib;
>
<!-- Navigation Aid: Miscellaneous remarks -->
<!ENTITY % eAIP.Navaid-remarks.content "(#PCDATA | %Flow.mix;)*">
<!ELEMENT %eAIP.Navaid-remarks.qname; %eAIP.Navaid-remarks.content;>
<!ATTLIST %eAIP.Navaid-remarks.qname;
    %eAIP.Id.attrib;
    %eAIP.Common.attrib;
>

```

## C.15. eAIP-sup.mod

```

<!-- eAIP Supplements Elements module ***** -->
<!-- file: eAIP-sup.mod
    Version: 1.1.0
    Date: 10 February 2006

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```

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This file is part of eAIP.dtd.

\*\*\*\*\*

-->

<!-- eAIP Supplements Elements Module

This module defines the Supplements elements of an eAIP XML document

-->

<!-- \*\*\*\*\*

Supplement

This is an additional section of material added to the eAIP. It may affect some pre-existing sections of the eAIP which are pointed at by an "<Affects>" element.

-->

<!ELEMENT %eAIP.Supplement.qname; (%eAIP.Title.qname;, %eAIP.Affects.qname;)>

<!ATTLIST %eAIP.Supplement.qname;

%eAIP.Id-req.attrib;

Year CDATA #REQUIRED

Number CDATA #REQUIRED

xlink:href CDATA #IMPLIED

%eAIP.Effective-date.attrib;

Cancel CDATA #IMPLIED

%eAIP.Common.attrib;

>

<!ENTITY % eAIP.Affects.content "(%eAIP.Inline.mix;)\*">

<!ELEMENT %eAIP.Affects.qname; %eAIP.Affects.content;>

<!ATTLIST %eAIP.Affects.qname;

%eAIP.Id.attrib;

%eAIP.Common.attrib;

>

## C.16. eSUP-structure.mod

<!-- eSUP Structure Elements Module \*\*\*\*\*-->

<!-- file: eSUP-structure.mod

Version: 1.1.0

Date: 10 February 2006

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This file is part of eAIP.dtd.

\*\*\*\*\*

-->

<!-- eSUP Structure Elements Module

This module defines the generic structure of an eSUP XML document:

-->

<!-- \*\*\*\*\* -->

<!-- Define the eSUP element and attributes -->

<!ENTITY % eAIP.eSUP.content "((%eAIP.Title.qname;)?, (%eAIP.Address.qname;)+, (%eAIP.References.qname;)?, (%eAIP.SUP-section.qname;)+)">

<!ELEMENT %eAIP.eSUP.qname; %eAIP.eSUP.content;>

<!ATTLIST %eAIP.eSUP.qname;

ICAO-country-code NMTOKENS #REQUIRED

State CDATA #REQUIRED

Publishing-state CDATA #IMPLIED

Publishing-organisation CDATA #REQUIRED

Publication-date CDATA #REQUIRED

Effective-date CDATA #IMPLIED

Cancel CDATA #IMPLIED

Number CDATA #REQUIRED

```

Year CDATA #REQUIRED
Type (Non-AIRAC | AIRAC) "AIRAC"
%eAIP.Common.attrib;
xml:lang CDATA #REQUIRED
Version CDATA #REQUIRED
>
<!-- note: Version attribute is required instead of fixed to force editors to
explicitely declare the version of the eAIP DTD to which compliance is claimed -->
<!-- SUP-section is a special kind of Sub-section, with an added attribute Concerns,
which refers to eAIP elements -->
<!ENTITY % eAIP.SUP-section.content "(%eAIP.SUP-section.mix;)">
<!ELEMENT %eAIP.SUP-section.qname; %eAIP.SUP-section.content;>
<!ATTLIST %eAIP.SUP-section.qname; %eAIP.Id.attrib;
%eAIP.Common.attrib;
%eAIP.Number.attrib; 'auto'
>
<!-- eAIP-reference is a link to an eAIP element that the parent SUP-section
supplements -->
<!ELEMENT %eAIP.eAIP-reference.qname; EMPTY>
<!ATTLIST %eAIP.eAIP-reference.qname;
%eAIP.Id.attrib;
%eAIP.Common.attrib;
Ref NMTOKEN #REQUIRED
>
<!-- end of eAIC-structure.mod -->

```

## C.17. eAIC-structure.mod

```

<!-- eAIC Structure Elements module ***** -->
<!-- file: eAIC-structure.mod
Version: 1.1.0
Date: 10 February 2006

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This file is part of eAIP.dtd.
*****
-->
<!-- eAIC Structure Elements Module -->
<!-- ***** -->
<!-- Define the eAIC element and attributes -->
<!ENTITY % eAIP.eAIC.content "(%eAIP.Title.qname;)?, (%eAIP.Address.qname;)+,
(%eAIP.References.qname;)?, (%eAIP.Sub-section.qname;)+)">
<!ELEMENT %eAIP.eAIC.qname; %eAIP.eAIC.content;>
<!ATTLIST %eAIP.eAIC.qname;
ICAO-country-code NMTOKENS #REQUIRED
State CDATA #REQUIRED
Publishing-state CDATA #IMPLIED
Publishing-organisation CDATA #REQUIRED
Series CDATA #IMPLIED
Number CDATA #REQUIRED
Year CDATA #REQUIRED
Publication-date CDATA #REQUIRED
Effective-date CDATA #IMPLIED
Cancel CDATA #IMPLIED
%eAIP.Common.attrib;
xml:lang CDATA #REQUIRED
Version CDATA #REQUIRED
>
<!-- note: Version attribute is required instead of fixed to force editors to
explicitely declare the version of the eAIP DTD to which compliance is claimed -->
<!-- end of eAIC-structure.mod -->

```

## C.18. eAIC-eSUP.mod

```

<!-- eAIP Structure Elements module ***** -->
<!-- file: eAIC-structure.mod
  Version: 1.1.0
  Date: 10 February 2006

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  This work is subject to the license provided in the file LICENSE.txt.

  This file is part of eAIP.dtd.
  *****
-->
<!-- eAIC-SUP Module

  This module defines common elements to eAIC and eSUP XML documents

-->
<!-- ***** -->
<!-- References contains any element needed for references purpose in the rest of
the document -->
<!ELEMENT %eAIP.References.qname; ANY>
<!ATTLIST %eAIP.References.qname;
  %eAIP.Id.attrib;
  %eAIP.Common.attrib;
>

<!-- end of eAIC-eSUP.mod -->

```

## C.19. Change Descriptions

### C.19.1. ENR 4.3 GNSS Chapter

| eAIP Specification Change | 1.0.4-1  |                 |          |
|---------------------------|--|-----------------|----------|
| <b>Title:</b>             | New ENR 4.3 chapter - GNSS   |                 |          |
| <b>Type:</b>              | New element  | <b>Affects:</b> | eAIP DTD |
| <b>Summary:</b>           | New element ENR-4.5. Modified content for element ENR-4.3 and ENR-4.4. |                 |          |

#### Detailed Description

The content model of the existing ENR-4.3 element is changed into 'general text content':

```
Sequence: (e:Title!, e:See-supplement*, Sequence: (Choice: (e:NIL!)?,
Choice: (e:Address!, e:Figure!, e:Sub-section!, x:div!, x:ol!, x:p!, x:table!, x:ul!)*))+)
```

The content model of the existing ENR-4.4 element is changed into 'designated point table':

```
Sequence: (e:Title!, Choice: (e:Designated-point-table!, e:NIL!))!
```

A new element is added to the ENR-4 element content model: ENR-4.5 having 'general text content'

```
Sequence: (e:Title!, e:See-supplement*, Sequence: (Choice: (e:NIL!)?,
Choice: (e:Address!, e:Figure!, e:Sub-section!, x:div!, x:ol!, x:p!, x:table!, x:ul!)*))+)
```

## Justification

Imposed by ICAO Annex 15 Amendment 33, which introduces a new chapter into the AIP structure for GNSS information. The new chapter is named ENR 4.3 and shifts the existing ENR 4.3 and ENR 4.4 chapters to ENR 4.4 and ENR 4.5, respectively.

### C.19.2. Amendment Groups

| eAIP Specification Change | 1.0.4-2  |                 |          |
|---------------------------|--|-----------------|----------|
| <b>Title:</b>             | Amendment Groups   |                 |          |
| <b>Type:</b>              | New elements   | <b>Affects:</b> | eAIP DTD |
| <b>Summary:</b>           | New elements to define groups of individual changes belonging to an Amendment. |                 |          |

### Detailed Description

The content model of the **Amendment element** is modified from:

```
EMPTY
```

to:

```
Sequence: (e:Description*, e:Group*)!
```

Its `id` attribute becomes mandatory.

The new **Group element** represents a group of individual changes which are part of the AIP Amendment represented by its parent `Amendment` element.

Individual changes (i.e. any element with an `Updated` attribute value different than `No`), can be assigned to a `Group` element using their `Updated-ref` attribute. This attribute can now refer to an `Amendment` element as before, thereby implicitly assigning the individual change to a default group named “Miscellaneous”, or to a `Group` element directly.

**Additional rule change:** The additional consistency rule concerning `Updated-ref` attributes, which were only allowed to refer to `Amendment` elements is now extended to also allow references to `Group` elements.

The content model of the `Group` element is as follows:

```
Sequence: (e:Description+)!
```

Its attributes are the following:

- `id`: required
- Common eAIP attributes (`class`, `Remarks`, `xml:base` and all namespace nodes).

The new **Description element** contains the description of its parent in a single language. AIP editors use this element to give a short description and optionally an extended description to the group. These two descriptions are expected to be presented to eAIP users (readers) in a list of changes and on a cover page, respectively.

The description of the `Amendment` element itself is optional. It corresponds to a default group. If omitted, a default description will be generated by the style sheets, using a title defined in the localisation file. It is expected that this default group will be used to list minor changes.

The `Description` element has the following content model:

```
Sequence: (
  e:Title!,
  e:Abstract!,
  Choice: (
    e:Address!, e:Figure!, x:div!, x:ol!, x:p!, x:table!, x:ul!
  )*
)!
```

**Additional rule:** Description elements under the same parent element must all have different `xml:lang` attribute values.

The `Description` element has the following attributes:

- `id`: optional
- Common eAIP attributes (`class`, `Remarks`, `xml:base` and all namespace nodes).

The new **Abstract element** has the following content model:

```
Choice: (text, e:Abbreviation!, e:Date-time!, e:Location!, x:a!, x:br!, x:cite!, x:em!,
x:span!, x:strong!)*
```

It contains a short description fitting in a single paragraph. It has the following attributes:

- `id`: optional
- Common eAIP attributes (`class`, `Remarks`, `xml:base` and all namespace nodes).

## Justification

Grouping individual changes is requested by AIP editors to present the comprehensive list of individual changes in a user-friendly way. The previous attempt to list individual changes grouped by section did not meet user satisfaction.

Editors required a method to group changes logically, and to describe the general objective which triggered a group of related changes.

### C.19.3. See-supplement

| eAIP Specification Change | 1.0.4-3  |                 |                            |
|---------------------------|--|-----------------|----------------------------|
| <b>Title:</b>             | See-supplement   |                 |                            |
| <b>Type:</b>              | Removed element  | <b>Affects:</b> | eAIP DTD, Additional Rules |
| <b>Summary:</b>           | Deprecated element See-supplement is removed from DTD. |                 |                            |

## Detailed Description

Element `See-supplement` is deprecated since eAIP 1.0.2. It is removed in 1.1.0. The content model of most sections, as well as `ENR-6`, `Aerodrome` and `Heliport` elements is changed from:

```
Sequence: (e:Title!, e:See-supplement*, Sequence: (Choice: (e:NIL!)?, ...)+)!
```

to:

```
Sequence: (e:Title!, Sequence: (Choice: (e:NIL!)?, ...)+)!
```

The additional rule (optional rule) corresponding to the See-supplement element is removed.

## Justification

No link should be made from an eAIP to a Supplement at XML-level, but rather from the Supplement to the eAIP, via the eAIP-reference element. Linking from an eAIP to a Supplement requires a modification of the eAIP when the Supplement is published. This is in opposition to the concept of Supplement, which brings information concerning an existing AIP issue. Publishing a Supplement should not require to publish an AIP amendment.

Please note that this does not apply to the HTML or PDF views of eAIPs, which can very well have bi-directional links between AIP sections and Supplements. In these cases, however, these links should be controlled and updated so that a Supplement published in the past always link to the latest published (or effective) AIP issue. If this is not possible, the user should at least be warned that the link may lead to an expired AIP issue.

## C.19.4. Flexible Use of Airspace (FUA)

| eAIP Specification Change | 1.0.4-4  |                 |          |
|---------------------------|--|-----------------|----------|
| <b>Title:</b>             | Flexible Use of Airspace (FUA)<br>- Minimum IFR cruising levels  |                 |          |
| <b>Type:</b>              | New elements   | <b>Affects:</b> | eAIP DTD |
| <b>Summary:</b>           | New elements Route-segment-usage-maximal-level and Route-segment-usage-minimal-level in element Route-segment-usage-reference. |                 |          |

## Detailed Description

The content model of the existing Route-segment-usage-reference element is changed into:

```
Sequence: (e:Route-segment-usage-direction!, e:Route-segment-usage-level-type!, e:Route-segment-usage-maximal-level?, e:Route-segment-usage-minimal-level?)!
```

The content model of the new elements Route-segment-usage-maximal-level and Route-segment-usage-minimal-level is set to 'inline content':

```
Choice: (text, e:Abbreviation!, e:Date-time!, e:Deleted!, e:Inserted!, e:Location!, x:a!, x:br!, x:cite!, x:em!, x:span!, x:strong!)*
```

## Justification

These elements are needed to publish FUA information (Minimum IFR cruising levels) as detailed in the ECAC Airspace Planning Manual published by EUROCONTROL:



## C.19.5. Route Track

| eAIP Specification Change | 1.0.4-5       |                 |                            |
|---------------------------|---------------|-----------------|----------------------------|
| <b>Title:</b>             | Route track   |                 |                            |
| <b>Type:</b>              | Schema change | <b>Affects:</b> | eAIP DTD, Additional Rules |

**Summary:** Modified DTD and additional rules in order to allow Route track magnetic/true combinations.

---

## Detailed Description

The content model for the element Route-segment is changed from:

```
Sequence: (... ,
Choice: (
  Sequence: (
    e:Route-segment-true-track? ,
    e:Route-segment-reverse-true-track?
  )! ,
  Sequence: (
    e:Route-segment-mag-track? ,
    e:Route-segment-reverse-mag-track?
  )!
)?
, ... )!
```

to:

```
Sequence: (... ,
e:Route-segment-true-track? ,
e:Route-segment-reverse-true-track?
e:Route-segment-mag-track? ,
e:Route-segment-reverse-mag-track?
, ... )!
```

Also, the Route track additional rule (Data Structure rule) is removed.

## Justification

Elements Route-segment-true-track, Route-segment-reverse-true-track, Route-segment-mag-track, Route-segment-reverse-mag-track had too many constraints. Specification 1.0.4 and before imposed that a given route segment contain either:

- no track at all; or
- just 1 track of any kind (magnetic of true); or
- 2 tracks of the same kind.

Moreover, the Route track additional rule imposed that all segments of a given route use consistent track kind: different segments could not mix magnetic and true tracks.

Experience shows that AIPs in Europe and beyond are not so strict when publishing route segment tracks. Consequently, the eAIP Specification is changed to allow any combination of magnetic and true tracks.

## C.19.6. SID/STAR

| eAIP Specification Change | 1.0.4-6       |                 |                            |
|---------------------------|---------------|-----------------|----------------------------|
| <b>Title:</b>             | SID/STAR      |                 |                            |
| <b>Type:</b>              | Schema change | <b>Affects:</b> | eAIP DTD, Additional Rules |

---

**Summary:** Modified DTD to allow more than one SID-STAR element in a Designated-point.

---

## Detailed Description

The content model for the element Designated-point is changed from:

Sequence: (e:Designated-point-ident!, e:Latitude!, e:Longitude!, e:SID-STAR?)!

to:

Sequence: (e:Designated-point-ident!, e:Latitude!, e:Longitude!, e:SID-STAR\*)!

This allows more than one SID-STAR element in a Designated-point.

The element SID-STAR now supports amendment attributes (Updated, Updated-ref and Updated-remark). This allows this element to be amended as such, and not just its content.

## Justification

This change has 2 advantages:

- Each SID/STAR procedure can be represented as such in XML format. Previously, several procedures would have to be encoded as a comma-separated list, for instance, which is not ideal in a structured document like the eAIP.
- Amending a SID-STAR is now simpler, as this element can be amended directly. Previously, only its content could be amended, which posed a problem when a designated point had no SID/STAR before the amendment.



# Appendix D. eAIP DTD Source Files

## D.1. eAIS-package.dtd

```

<!-- eAIS Package DTD ***** -->
<!-- file: eAIS-package.dtd
Version: 1.0
Date: 10 February 2006

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PUBLIC "-//EUROCONTROL//eAIS Package DTD 1.0//EN"
SYSTEM "http://www.eurocontrol.int/ais/eaip/dtd/1.0.4/eAIS-package.dtd">
xmlns:e="http://www.eurocontrol.int/xmlns/AIM/eAIS-package"
*****
-->
<!-- This is the DTD driver for eAIS Package -->
<!-- correction of XHTML 1.1 entities -->
<!ENTITY lt "&#60;">
<!ENTITY amp "&#38;">
<!-- Namespaces control -->
<!ENTITY % XHTML.prefixed "IGNORE">
<!ENTITY % NS.prefixed "INCLUDE">
<!ENTITY % XHTML.prefix "x">
<!-- XHTML version -->
<!ENTITY % XHTML.version "-//EUROCONTROL//eAIS Package DTD 1.0//EN">
<!-- reserved for use with document profiles -->
<!ENTITY % XHTML.profile "">
<!-- Tell the framework to use our qualified names module as an extra qname
driver -->
<!ENTITY % xhtml-qname-extra.mod SYSTEM "eAIS-package-qname.mod">
<!-- Define the Content Model for the framework to use -->
<!ENTITY % xhtml-model.mod SYSTEM "eAIS-package-model.mod">
<!-- Disable bidirectional text support -->
<!ENTITY % XHTML.bidi "IGNORE">
<!-- Bring in the XHTML Framework -->
<!ENTITY % xhtml-framework.mod PUBLIC "-//W3C//ENTITIES XHTML Modular Framework 1.0//EN"
"xhtml-framework-1.mod">
%xhtml-framework.mod;
<!-- Basic Text Module (Required) ..... -->
<!ENTITY % xhtml-text.mod PUBLIC "-//W3C//ELEMENTS XHTML Basic Text 1.0//EN"
"xhtml-text-1.mod">
%xhtml-text.mod;
<!-- Hypertext Module (required) ..... -->
<!ENTITY % xhtml-hypertext.mod PUBLIC "-//W3C//ELEMENTS XHTML Hypertext 1.0//EN"
"xhtml-hypertext-1.mod">
%xhtml-hypertext.mod;
<!-- Lists Module (required) ..... -->
<!ENTITY % xhtml-list.mod PUBLIC "-//W3C//ELEMENTS XHTML Lists 1.0//EN"
"xhtml-list-1.mod">
%xhtml-list.mod;
<!-- Table Module ..... -->
<!ENTITY % xhtml-table.mod PUBLIC "-//W3C//ELEMENTS XHTML Tables 1.0//EN"
"xhtml-table-1.mod">
%xhtml-table.mod;
<!-- XHTML Images module ..... -->
<!ENTITY % xhtml-image.mod PUBLIC "-//W3C//ELEMENTS XHTML Images 1.0//EN"
"xhtml-image-1.mod" >
%xhtml-image.mod;
<!-- eAIS-package Modules ..... -->

```

```
<!-- Common attributes -->
<!ENTITY % eAIS-package-attribs.mod SYSTEM "eAIS-package-attribs.mod">
%eAIS-package-attribs.mod;
<!-- Specific and generic structural elements -->
<!ENTITY % eAIS-package-structure.mod SYSTEM "eAIS-package-structure.mod">
%eAIS-package-structure.mod;
```

## D.2. eAIS-package-qname.mod

```
<!-- eAIS Package Qname module ***** -->
<!-- file: eAIS-package-qname.mod
Version: 1.0
Date: 31 August 2004

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This work is subject to the license provided in the file LICENSE.txt.

This file is part of eAIS-package.dtd.
*****
-->
<!-- eAIS Package Qname (Qualified Name) Module

This module declares parameter entities to support namespace-qualified names, namespace
declarations, and name prefixing for eAIS Package
-->
<!-- ***** -->
<!-- Declare the default value for prefixing of this module's elements -->
<!-- Note that the NS.prefixed will get overridden by the XHTML Framework or
by a document instance. -->
<!ENTITY % NS.prefixed "IGNORE">
<!ENTITY % eAIS-package.prefixed "%NS.prefixed;">
<!-- Declare the actual namespace of this module -->
<!ENTITY % eAIS-package.xmlns "http://www.eurocontrol.int/xmlns/AIM/eAIS-package">
<!-- Declare the default prefix for this module -->
<!ENTITY % eAIS-package.prefix "p">
<!-- Declare the prefix for this module -->
<![%eAIS-package.prefixed;[
<!ENTITY % eAIS-package.pfx "%eAIS-package.prefix;" >
]]>
<!ENTITY % eAIS-package.pfx "">
<!-- Declare a Parameter Entity (PE) that defines any external namespaces
that are used by this module -->
<!ENTITY % eAIS-package.xmlns.extra.attrib "
xmlns:xlink CDATA #FIXED 'http://www.w3.org/1999/xlink'
">
<!-- Declare a PE that defines the xmlns attributes for use by eAIP elements. -->
<![%eAIS-package.prefixed;[
<!ENTITY % eAIS-package.xmlns.attrib
"xmlns:%eAIS-package.prefix; %URI.datatype; #FIXED '%eAIS-package.xmlns;'
%eAIS-package.xmlns.extra.attrib;"
>
]]>
<!ENTITY % eAIS-package.xmlns.attrib "
xmlns %URI.datatype; #FIXED '%eAIS-package.xmlns;'
%eAIS-package.xmlns.extra.attrib;"
">
<!-- Make sure that the eAIP namespace attributes are included on the XHTML
attribute set -->
<![%NS.prefixed;[
<!ENTITY % XHTML.xmlns.extra.attrib
"%eAIS-package.xmlns.attrib;" >
]]>
<!ENTITY % XHTML.xmlns.extra.attrib "">
```

```

<!-- *****
Now declare the qualified names for all of the elements in the module
***** -->
<!-- eAIS-package-structure.mod -->
<!ENTITY % eAIS-package.eAIS-packages.qname "%eAIS-package.pfx;eAIS-packages">
<!ENTITY % eAIS-package.eAIS-package-reference.qname "%eAIS-package.pfx;
eAIS-package-reference">
<!ENTITY % eAIS-package.eAIS-package.qname "%eAIS-package.pfx;eAIS-package">
<!ENTITY % eAIS-package.Description.qname "%eAIS-package.pfx;Description">
<!ENTITY % eAIS-package.eAIP-package.qname "%eAIS-package.pfx;eAIP-package">
<!ENTITY % eAIS-package.eAICs.qname "%eAIS-package.pfx;eAICs">
<!ENTITY % eAIS-package.eSUPs.qname "%eAIS-package.pfx;eSUPs">
<!ENTITY % eAIS-package.eAIC-reference.qname "%eAIS-package.pfx;eAIC-reference">
<!ENTITY % eAIS-package.eSUP-reference.qname "%eAIS-package.pfx;eSUP-reference">
<!ENTITY % eAIS-package.Language-version.qname "%eAIS-package.pfx;Language-version">

```

### D.3. eAIS-package-model.mod

```

<!-- eAIS Package Model module ***** -->
<!-- file: eAIS-package-model.mod
Version: 1.0
Date: 31 August 2004

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This file is part of eAIS-package.dtd.
*****
-->
<!-- eAIS Package content model, including relations with XHTML elements -->
<!ENTITY % eAIS-package.languages.class "(%eAIS-package.Language-version.qname;)+">

<!-- Define the content model for Misc.extra -->
<!ENTITY % Misc.class
    ">

<!-- ..... Inline Elements ..... -->

<!ENTITY % HeadOpts.mix
    "( %meta.qname; )" >

<!ENTITY % I18n.class ">

<!ENTITY % InlStruct.class "%br.qname; | %span.qname;" >

<!ENTITY % InlPhras.class
    "| %em.qname; | %strong.qname; | %dfn.qname; | %code.qname;
    | %samp.qname; | %kbd.qname; | %var.qname; | %cite.qname;
    | %abbr.qname; | %acronym.qname; | %q.qname;" >

<!ENTITY % InlPres.class
    ">

<!ENTITY % Anchor.class "| %a.qname;" >

<!ENTITY % InlSpecial.class "| %img.qname;" >

<!ENTITY % Inline.extra ">

<!-- %Inline.class; includes all inline elements,
used as a component in mixes
-->
<!ENTITY % Inline.class

```

```

"%InlStruct.class;
  %InlPhras.class;
  %InlPres.class;
  %Anchor.class;
  %InlSpecial.class;"
>

<!-- %InlNoAnchor.class; includes all non-anchor inlines,
      used as a component in mixes
-->
<!ENTITY % InlNoAnchor.class
  "%InlStruct.class;
  %InlPhras.class;
  %InlPres.class;
  %InlSpecial.class;"
>

<!-- %InlNoAnchor.mix; includes all non-anchor inlines
-->
<!ENTITY % InlNoAnchor.mix
  "%InlNoAnchor.class;
  %Misc.class;"
>

<!-- %Inline.mix; includes all inline elements, including %Misc.class;
-->
<!ENTITY % Inline.mix
  "%Inline.class;
  %Misc.class;"
>

<!-- ..... Block Elements ..... -->

<!ENTITY % Heading.class
  "%h1.qname; | %h2.qname; | %h3.qname;
  | %h4.qname; | %h5.qname; | %h6.qname;" >

<!ENTITY % List.class "%ul.qname; | %ol.qname; | %dl.qname;" >

<!ENTITY % BlkStruct.class "%p.qname; | %div.qname;" >

<!ENTITY % BlkPhras.class
  "| %pre.qname; | %blockquote.qname; | %address.qname;" >

<!ENTITY % BlkPres.class "" >

<!ENTITY % Block.extra "" >

<!-- %Block.class; includes all block elements,
      used as an component in mixes
-->
<!ENTITY % Block.class
  "%BlkStruct.class;
  %BlkPhras.class;
  %BlkPres.class;
  %Block.extra;"
>

<!-- %Block.mix; includes all block elements plus %Misc.class;
-->
<!ENTITY % Block.mix
  "%Heading.class;
  | %List.class;

```

```

    | %Block.class;
    %Misc.class;"
>

<!-- ..... All Content Elements ..... -->

<!-- %Flow.mix; includes all text content, block and inline
-->
<!ENTITY % Flow.mix
    "%Heading.class;
    | %List.class;
    | %Block.class;
    | %Inline.class;
    %Misc.class;"
>

<!-- special content model for pre element -->
<!ENTITY % pre.content
    "( #PCDATA
    | %Inline.class; )"
>
<!-- end of eAIS-package-model.mod -->

```

## D.4. eAIS-package-attribs.mod

```

<!-- eAIS Package Common Attributes module ***** -->
<!-- file: eAIS-package-attribs.mod
Version: 1.0.3 modified for FrameMaker
Date: 08 December 2003

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This file is part of eAIS-package.dtd.
*****
-->
<!-- eAIS Package Common Attributes Module

This module defines common attributes of eAIS Package elements:

-->
<!ENTITY % eAIS-package.Common-AIS-package.attrib "
    id          ID          #IMPLIED
    %eAIS-package.xmlns.attrib;
">
<!-- xlink attributes -->
<!ENTITY % eAIS-package.xlink.attrib '
    xlink:show (embed | replace | new | other | none) "replace"
    xlink:href CDATA #REQUIRED
'>
<!ENTITY % eAIS-package.package-name.attrib "
    Package-name NMTOKEN #REQUIRED
">
<!ENTITY % eAIS-package.xml-lang.attrib "
    xml:lang CDATA #REQUIRED
">
<!-- end of eAIS-package-attribs.mod -->

```

## D.5. eAIS-package-structure.mod

```

<!-- eAIS Package Structure Elements module ***** -->
<!-- file: eAIS-package-structure.mod

```

Version: 1.0

Date:

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This file is part of eAIS-package.dtd.

\*\*\*\*\*

```
-->
<!-- eAIS Package Structure Elements Module -->
<!-- ***** -->
<!-- Root element eAIS-packages -->
<!ENTITY % eAIS-package.eAIS-packages.content
 "((%eAIS-package.eAIS-package-reference.qname;)+)">
<!ELEMENT %eAIS-package.eAIS-packages.qname; %eAIS-package.eAIS-packages.content;>
<!ATTLIST %eAIS-package.eAIS-packages.qname;
  Publication-date CDATA #REQUIRED
  %eAIS-package.Common-AIS-package.attrib;
>
<!-- eAIS-package-reference element -->
<!ENTITY % eAIS-package.eAIS-package-reference.content "EMPTY">
<!ELEMENT %eAIS-package.eAIS-package-reference.qname;
 %eAIS-package.eAIS-package-reference.content;>
<!ATTLIST %eAIS-package.eAIS-package-reference.qname;
  %eAIS-package.Common-AIS-package.attrib;
  %eAIS-package.xlink.attrib;
>
<!-- Root element eAIS-package -->
<!-- note: Version attribute is required instead of fixed to force editors to explicitly
declare the version of the DTD to which compliance is claimed -->
<!ENTITY % eAIS-package.eAIS-package.content "((%eAIS-package.Description.qname;)+,
(%eAIS-package.eAIP-package.qname;), (%eAIS-package.eSUPs.qname;)*,
(%eAIS-package.eAICs.qname;)*)">
<!ELEMENT %eAIS-package.eAIS-package.qname; %eAIS-package.eAIS-package.content;>
<!ATTLIST %eAIS-package.eAIS-package.qname;
  ICAO-country-code NMTOKENS #REQUIRED
  State CDATA #REQUIRED
  Publishing-state CDATA #IMPLIED
  Publishing-organisation CDATA #REQUIRED
  Publication-date CDATA #REQUIRED
  Effective-date CDATA #IMPLIED
  %eAIS-package.package-name.attrib;
  Version CDATA #REQUIRED
  %XHTML.xmlns.attrib;
  %eAIS-package.Common-AIS-package.attrib;
>
<!-- Description element -->
<!ENTITY % eAIS-package.Description.content "(%Block.mix;)*">
<!ELEMENT %eAIS-package.Description.qname; %eAIS-package.Description.content;>
<!ATTLIST %eAIS-package.Description.qname;
  %XHTML.xmlns.attrib;
  %eAIS-package.xml-lang.attrib;
  %eAIS-package.Common-AIS-package.attrib;
  Short CDATA #IMPLIED
>
<!-- eAIP-package element -->
<!ENTITY % eAIS-package.eAIP-package.content "%eAIS-package.languages.class;">
<!ELEMENT %eAIS-package.eAIP-package.qname; %eAIS-package.eAIP-package.content;>
<!ATTLIST %eAIS-package.eAIP-package.qname;
  %eAIS-package.package-name.attrib;
  %eAIS-package.Common-AIS-package.attrib;
>
<!-- eAICs element -->
```

```

<!ENTITY % eAIS-package.eAICs.content "(%eAIS-package.eAIC-reference.qname;)*">
<!ELEMENT %eAIS-package.eAICs.qname; %eAIS-package.eAICs.content;>
<!ATTLIST %eAIS-package.eAICs.qname;
  %eAIS-package.Common-AIS-package.attrib;
>
<!-- eSUPs element -->
<!ENTITY % eAIS-package.eSUPs.content "(%eAIS-package.eSUP-reference.qname;)*">
<!ELEMENT %eAIS-package.eSUPs.qname; %eAIS-package.eSUPs.content;>
<!ATTLIST %eAIS-package.eSUPs.qname;
  %eAIS-package.Common-AIS-package.attrib;
>
<!-- eAIC-reference element -->
<!ENTITY % eAIS-package.eAIC-reference.content "%eAIS-package.languages.class;">
<!ELEMENT %eAIS-package.eAIC-reference.qname; %eAIS-package.eAIC-reference.content;>
<!ATTLIST %eAIS-package.eAIC-reference.qname;
  %eAIS-package.package-name.attrib;
  %eAIS-package.Common-AIS-package.attrib;
>
<!-- eSUP-reference element -->
<!ENTITY % eAIS-package.eSUP-reference.content "%eAIS-package.languages.class;">
<!ELEMENT %eAIS-package.eSUP-reference.qname; %eAIS-package.eSUP-reference.content;>
<!ATTLIST %eAIS-package.eSUP-reference.qname;
  %eAIS-package.package-name.attrib;
  %eAIS-package.Common-AIS-package.attrib;
>
<!-- Language-version element -->
<!ENTITY % eAIS-package.Language-version.content "EMPTY">
<!ELEMENT %eAIS-package.Language-version.qname; %eAIS-package.Language-version.content;>
<!ATTLIST %eAIS-package.Language-version.qname;
  %eAIS-package.xlink.attrib;
  %eAIS-package.Common-AIS-package.attrib;
  xml:lang CDATA #REQUIRED
>
<!-- end of eAIS-package-structure.mod -->

```

