eAIP specification 2.0 – overview (Dakar, Senegal, 3-5 October 2016)

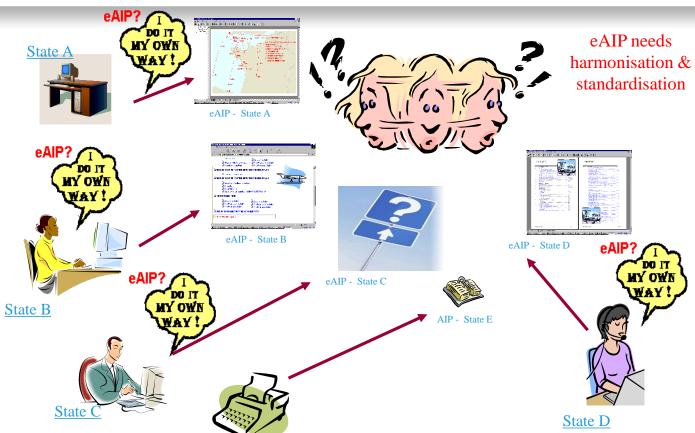
George BALDEH

RO/AIM

Agenda Items 5a/b



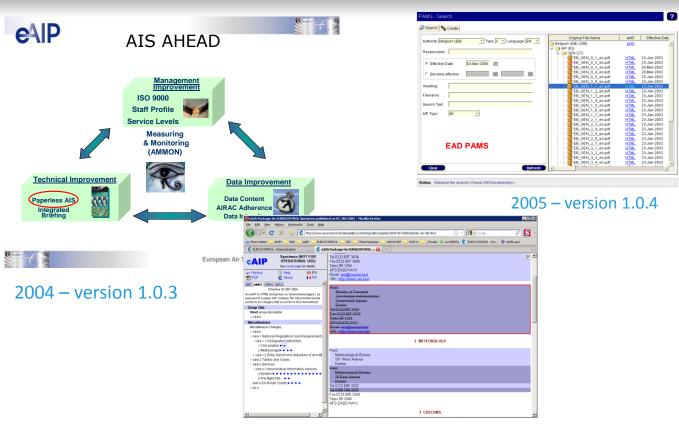






## ICAO DAKAR UNITING AVIATION

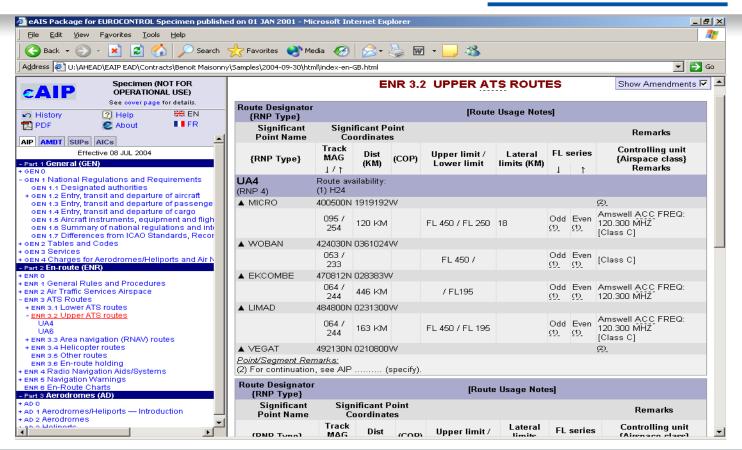
# eAIP development history



# **eAIP Specification**

- Publication: the eAIP is designed to allow optimal consultation on screen
- Not a software tool
  - –however, proof of concept "MakeAIP" software package is provided
  - –industry to provide advanced editing& supporting software
- Fully compatible with the ICAO SARPS
  - -complete solution, encompassing all elements of the IAIP (Integrated Aeronautical Information Package)

# **On screen**

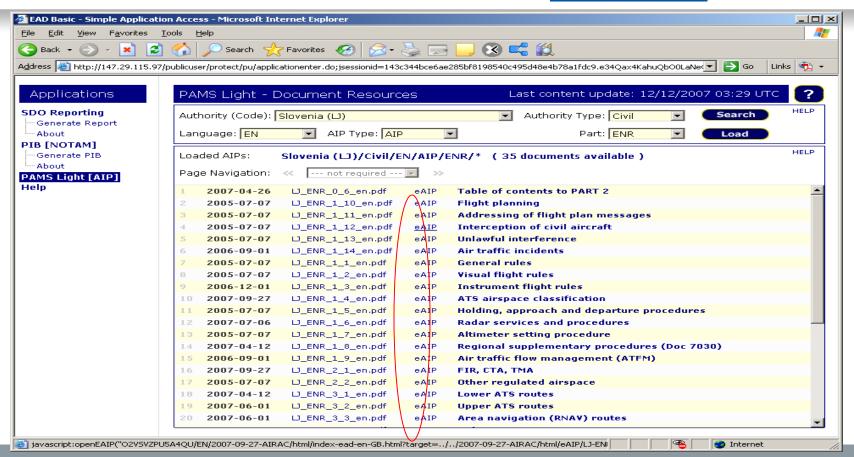




AIP Specimen (NOT FOR OPERATIONAL USE) AD 2.EADD-1 15/02/2000 AD 2 Aerodromes EADD — DONLON/Intl. EADD AD 2.1 Aerodrome location indicator and name EADD — DONLON/Intl. EADD AD 2.2 Aerodrome geographical and administrative data ARP coordinates and site at AD 522318N 0315658W 258°/1 075 M from THR 09L Direction and distance from (city) 045°, 9 KM from Donlon Elevation/Reference temperature 30 M (99 FT)/21°C MAG VAR/Annual change 3°W (1990)/0.03° decreasing AD Administration, address, telephone, telefax, telex, AFS Civil Aviation Administration Donlon Airport Donlon 4 W Tel:01238282 Fax:01238292 Telex: 996666 AFS:EADDYDYX Types of traffic permitted (IFR/VFR) IFR/VFR Remarks Nil 210 x 297 mm 1 of 40 









# **Implementation Status**

### eAIP Implementations

The States currently publishing an Electronic AIP that complies with the EUROCONTROL eAIP Specification are listed below.



Many more in preparation, as far as we know!



## eAIP User Group Meetings

Cooperative Network Design (CND)
Aeronautical Information Management (AIM)

eAIP User Group #3



eAIP User Group

Neptune Conference Room EUROCONTROL Rue de la Fusée 96 B -1130 Brussels Wednesday, 10 June 2009 10h00 to 16h30 Proposed eAIP enhancements

#### 1. ACTIONS

- The Agency to refresh the eAIP Web site (<u>www.eurocontrol.int/eaip</u>) to include Specification version 1.1.0 and list all States that have implemented an eAIP according to the EUROCONTROL Specification. (*Target date: end July 2007*)
- 2. The Agency to modify the eAIP Toolbox 1.1.0 in order to support the handling of NIL sections as proposed in the presentation of Slovenia (*Target date: end July 2007*)
- The Agency to set-up an eAIP Forum, similar to AIS Agora and the AIXM Forum, enabling a more active contact between the stakeholders of the eAIP Specification. (*Target date: end August 2007*)
- All participants to reply to the AIS Team Questionnaire, available on line at <a href="http://www.eurocontrol.int/aim/gallery/content/public/documents/aist\_questionnaire.html">http://www.eurocontrol.int/aim/gallery/content/public/documents/aist\_questionnaire.html</a> (Target date: end August 2007).
- The Agency to upload in OneSky Teams all the presentations and the list of participants (Target date: end June 2007).



L 23/6

EN

Official Journal of the European Union

27.1.2010

#### COMMISSION REGULATION (EU) No 73/2010

of 26 January 2010

laying down requirements on the quality of aeronautical data and aeronautical information for the single European sky

(Text with EEA relevance)

THE EUROPEAN COMMISSION.

Having regard to the Treaty on the Functioning of the European Union.

Having regard to Regulation (EC) No 552/2004 of the European Parliament and of the Council of 10 March 2004 on the interoperability of the European Air Traffic Management network (the interoperability Regulation) (1) and in particular Article 3(5) thereof,

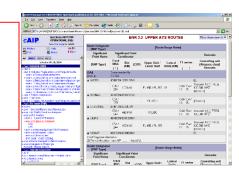
data and aeronautical information are not always met within the EATMN, in particular the accuracy and integrity requirements.

A significant amount of paper-based, manual activity still takes place within the aeronautical data chain, which leads to significant opportunities for the introduction of errors and the degradation of data quality. Measures should therefore be adopted to improve the situation.

## ICAO DAKAR UNITING AVIATION

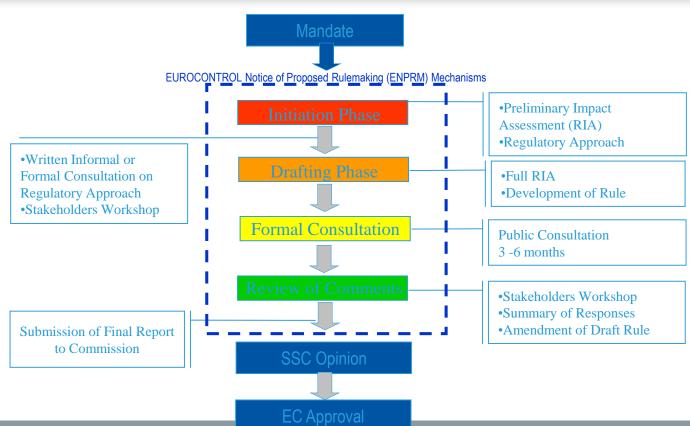
# ADQ IR – Article 5

- 4. Aeronautical information service providers shall ensure that all aeronautical data and aeronautical information within the AIPs, AIP amendments and AIP supplements provided by a Member State are made available to the next intended user, as a minimum:
- (a) in accordance with the publication requirements identified in the ICAO standards referred to in points 4 and 8 of Annex III;
- (b) in a way that allows the content and format of the documents to be directly readable on a computer screen; and





# ICAO DAKAR UNITING AVIATION Implementing Rule Development



### eAIP Specification (eAIP version 2.0)

#### EUROPEAN ORGANISATION FOR THE SAFETY OF AIR NAVIGATION



#### EUROCONTROL Specification for the Electronic Aeronautical Information Publication (eAIP)

SPECIFICATION DOCUMENT IDENTIFIER: EUROCONTROL-SPEC- 0146

Edition Number : Edition Date : Status : Intended for :

Category

2.0 14 February 2011 Released General Public

EUROCONTROL Specification

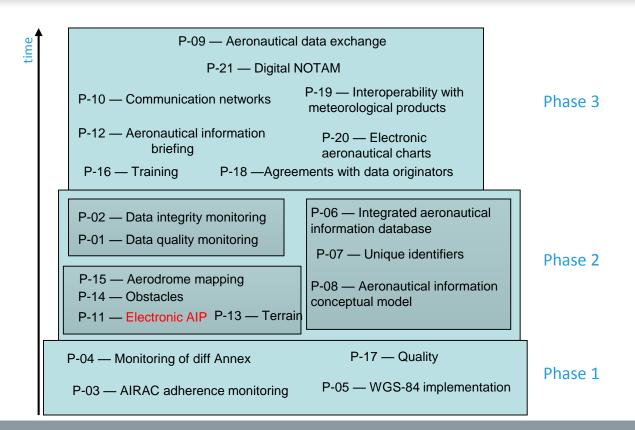
EUROPEAN AIR TRAFFIC MANAGEMENT PROGRAMME

# ICAO DAKAR UNITING AVIATION EAIP specification

### The previous version has been reorganised into:

- Six (6) Chapters, introduction and general descriptions
- Seven (7) annexes
  - Annex A (normative) Specification of eAIP requirements
    - Requirements are now categorized M, O, C.
  - Annex B Conformity Material
  - Annex C Traceability to Regulatory Provisions
  - Annex D Example Production Process
  - Annex E Specification Update Procedure (ENPRM Process)
  - Annex F Abbreviations
  - Annex G Definitions
- Means of compliance for ADQ IR Article 5.4.b
- Specification (Annex A) will become part of the ICAO document ...

# ICAO DAKAR UNITING AVIATION ICAO - Transition from AIS to AIM



# ICAO AIS to AIM Roadmap

### Phase 2 — Going digital

- (54) "Many States are already providing electronic equivalents of their AIPs, e.g. on CD or on the Internet. These electronic AIPs may be accessible for printing and/or for navigation via a web browser tool. Guidance material that will be based on existing best practices will be provided to States to ensure that new types of media will be harmonized for users."

### Annex 15 – 13<sup>th</sup> Edition, July 2010 (AMDT 36)

#### 4.6 Electronic AIP (eAIP)

- 4.6.1 **Recommendation.** The AIP, AIP Amendment, AIP Supplement and AIC should also be published in a format that allows for displaying on a computer screen and printing on paper.
- Note 1.— This composite electronic document is named "Electronic AIP" (eAIP) and may be based on a format that allows for digital data exchange.
  - Note 2.— Guidance material for the production and provision of the eAIP is contained in Doc 8126.
- 4.6.2 When provided, the information content of the eAIP and the structure of chapters, sections and sub-sections shall follow the content and structure of the paper AIP. The eAIP shall include files that allow for printing a paper AIP.

# Main Changes from eAIP 1.1.0

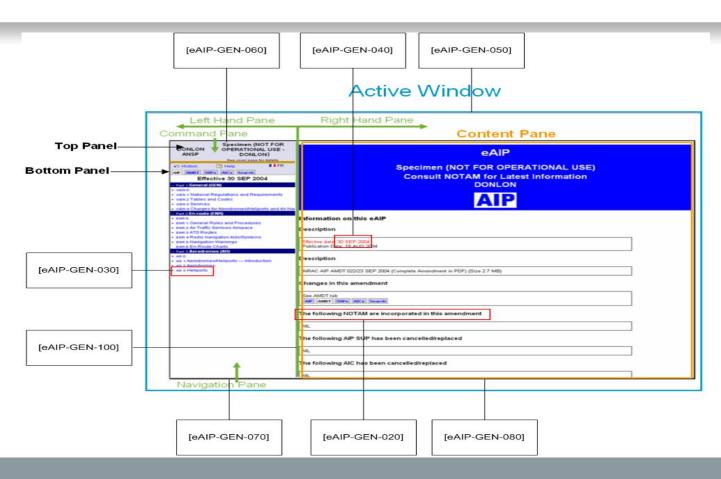
### eAIP view

- Search interface
- AIC grouped by series
- AD 1.5
- PDF logo
- Effective/publication date visibility in tabs
- Header block background colours for AIC and SUP
- Removed effective date from eAIS Package
- Allow block elements before Navaid and Designated-point tables
- Add support for more than 1 introductory text block in GEN 2.2 and GEN 2.4
- Improved document structure: no blocks between sub-section, no nested numbered paragraphs; title now mandatory in Sub-section; no nested SUP-section, at least 1 AIP reference in SUP-section

# Changes from eAIP 1.1.0

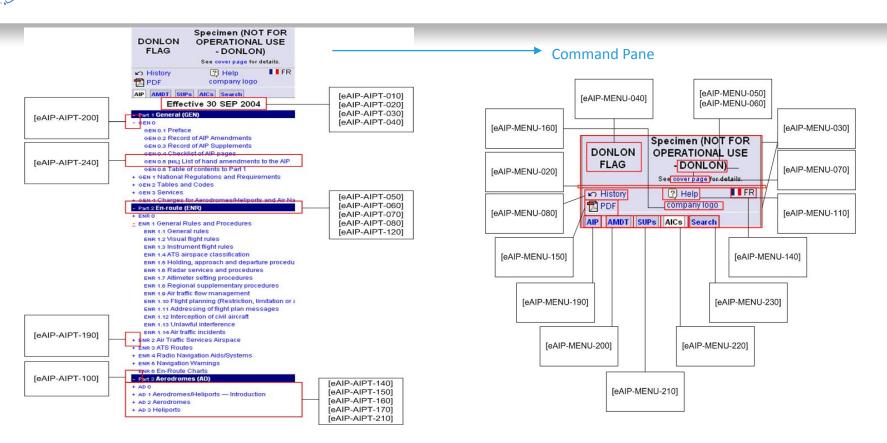
- eAIP production (toolbox)
  - Bilingual eAIP in a single document (as opposed to 2 eAIPs previously)
  - Support for effective time on PDF paper AMDT cover page and on HTML eAIS Package cover page
  - Numerous bug fixes in XSLT

### **Definitions of the eAIP Active Window**



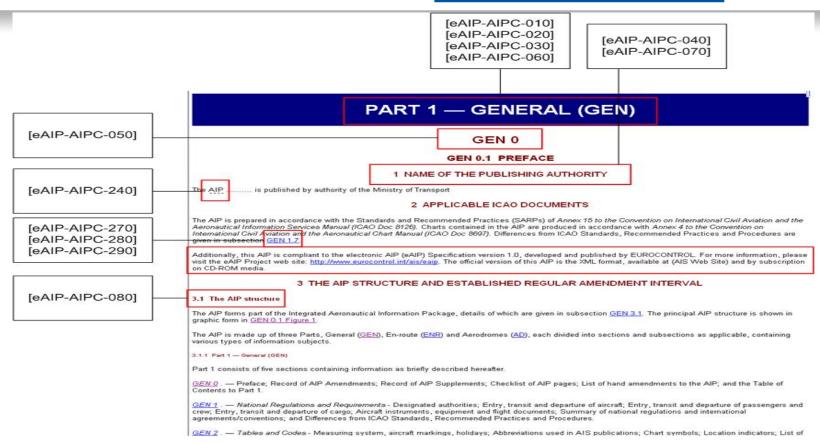
## ICAO DAKAR UNITING AVIATION

## AIP Table of contents











## **AIP Content Amendments**

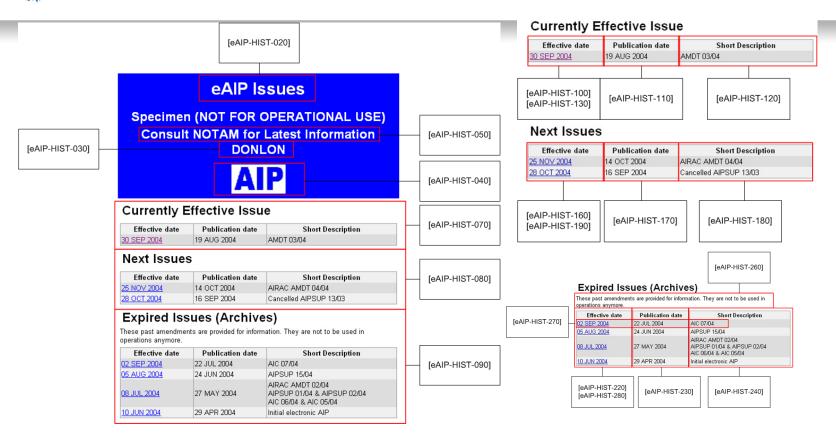
[eAIP-AIPC-320] [eAIP-AIPC-330] [eAIP-AIPC-340]

2.2.1 Transiting a. Flights transiting Amswell FIR, whereby ....... (State) territory is overflown. b. Flights to and from .. ..... (State), whereby a maximum of two landings are made. 2.2.2 Internal Flights conducted within. (specify) area, except such flights to and from ....... (specify), whereby a maximum of two landings are made. 3 EQUIPMENT TO BE CARRIED BY ALL TYPES OF FLIGHTS The following radio and navigation equipment shall be carried within ....... (State or FIR): ........ (specify). 4 EQUIPMENT TO BE CARRIED ON ALL INTERNAL AND ON CERTAIN FLIGHTS [eAIP-AIPC-350] 4.1 On all internal flights and on flights with single-engined and multi-engined aircraft which are not capable of maintaining the prescribed minimum safe altitude in the event of engine failure, the following emergency equipment shall be carried. 4.2 Signalling equipment a. An emergency locator transmitter (ELT); b. Two signal flares of the day and night type; c. Eight red signal cartridges and a means of firing them; d. A signal sheet (minimum 1 1 m) in a reflecting colour, e. A signal mirror, and f. An electric hand torch 4.3 Survival equipment a. A compass; b. A knife; A sleeping bag with waterproof inner lining or a rescue blanket (Astron) per person; d. Four boxes of matches in waterproof containers; [eAIP-AIPC-360] e. A ball of string; [eAIP-AIPC-370] Sun protection cream; f. A cooking stove with fuel and the accompanying cooking and eating utensils. During winter conditions and when flying over the icecap, the following shall also be carried; A snow saw or snow shovel: Candles with a burning time of about 2 hours per person. The minimum burning time of the candles shall not be less than 40 hours; and Tent(s) for all on board. If dinghies are carried, the tent(s) need not be carried. [eAIP-AIPC-380] Note: It is recommended that a rifle and the necessary ammunition be carried when overflying areas where wild animals can be expected. Personal clothing should be suitable for the climatic conditions along the route to be overflown.



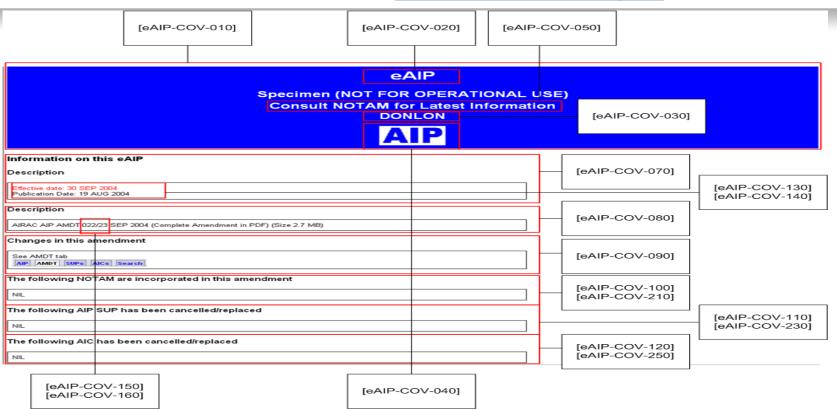
### ICAO DAKAR UNITING AVIATION

# eAIP History Page(1)

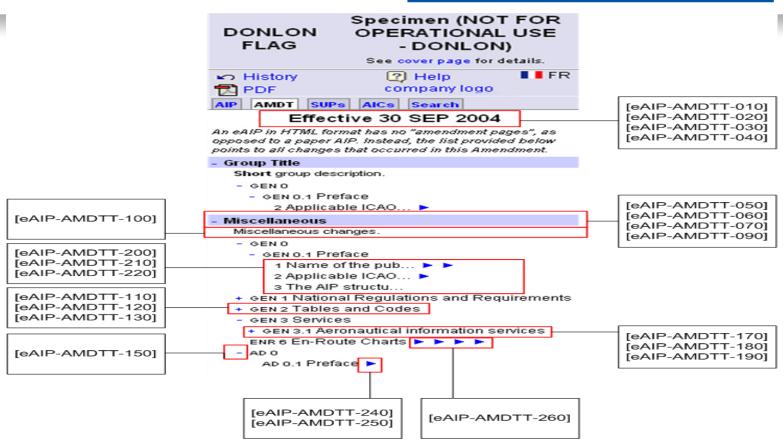




# ICAO DAKAR UNITING AVIATION COVER Page



## **AMDT Table of Contents**



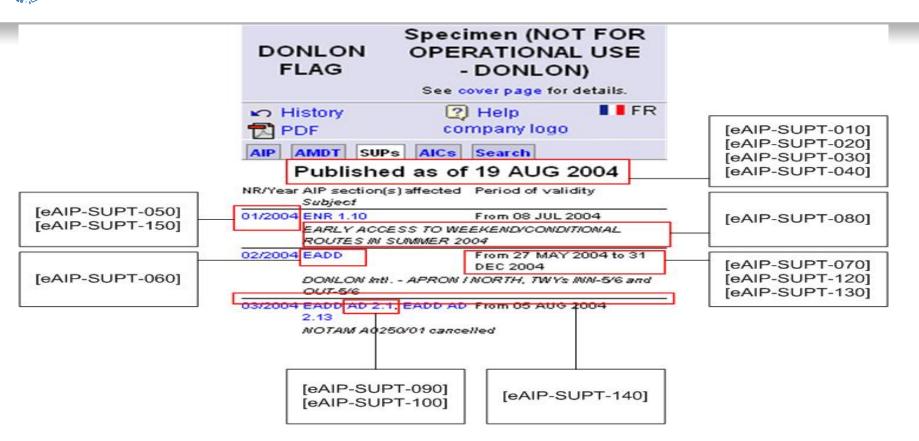


# **AMDT Content**



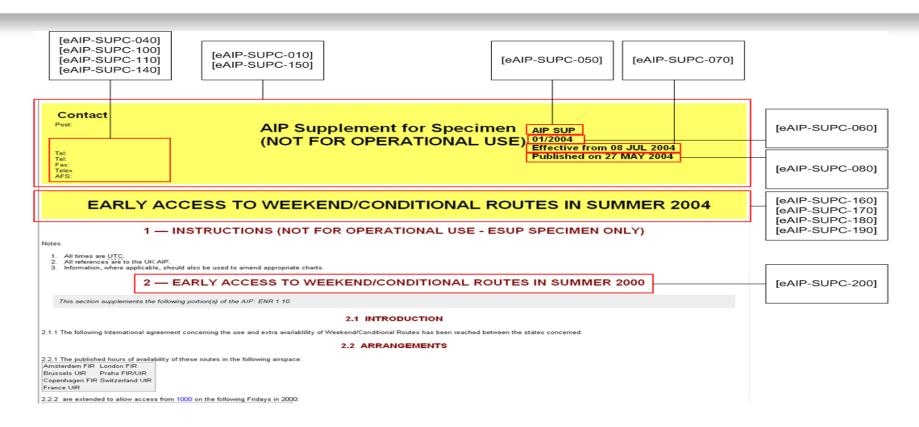
### ICAO DAKAR UNITING AVIATION

# **SUPs Table of Contents**

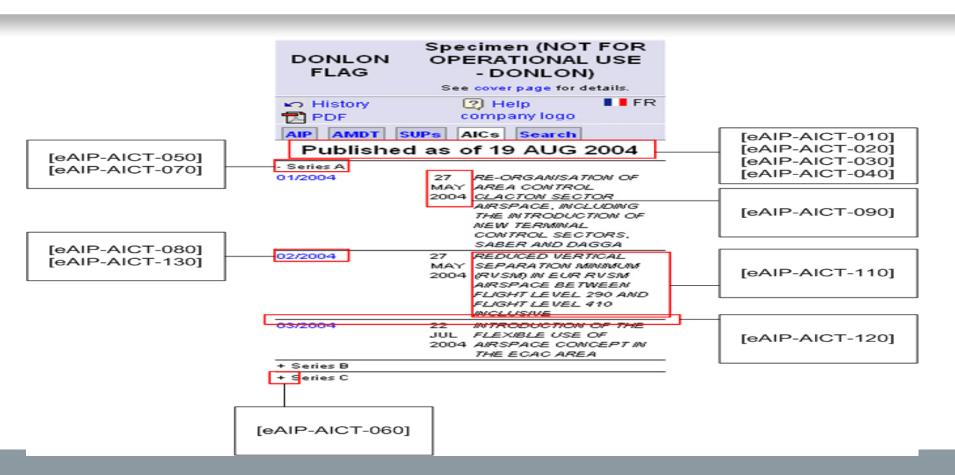




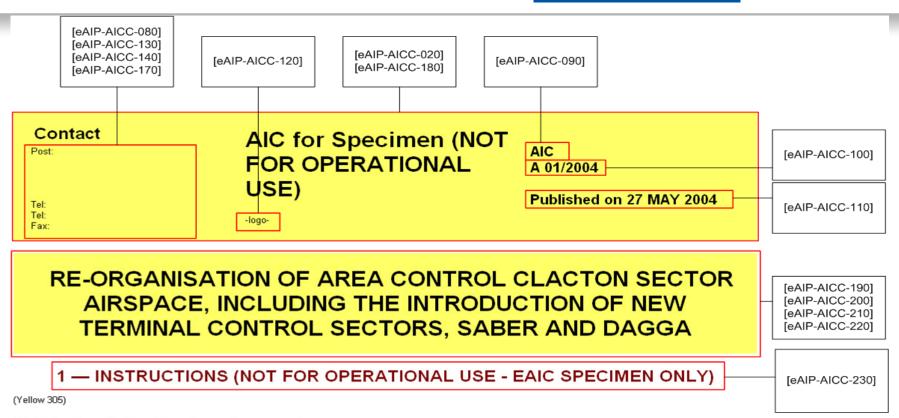




## **AICs Table of Contents**



# **AIC Content**



This Circular is issued for information, guidance and necessary action.

## Search Facility

[eAIP-SRCH-070] [eAIP-SRCH-100] [eAIP-SRCH-080]

#### Specimen (NOT FOR DONLON OPERATIONAL USE FLAG - DONLON) See cover page for details.

History P Help PDF company logo AIP AMDT SUPS AICS Search

Search for: Airspace Start Clear

ENR 1.4 ATS Airspace Classification ENR 2.1 FIR, UIR, TMA ENR 2.2 other regulated airspace

#### **ENR 1.4 ATS AIRSPACE CLASSIFICATION**

#### 1 CLASSIFICATION OF AIRSPACES

ATS airspaces are classified and designated in accordance with the following:

Class A. IFR flights only are permitted, all flights are subject to air traffic control service and are separated from each other.

Class B. IFR and VFR flights are permitted, all flights are subject to air traffic control service and are separated from each other.

Class C. IFR and VFR flights are permitted, all flights are subject to air traffic control service and IFR flights are separated from other IFR flights and from VFR flights. VFR flights are separated from IFR flights and receive traffic information in respect of other VFR flights,

Class D. IFR and VFR flights are permitted and all flights are subject to air traffic control service, IFR flights are separated from other IFR flights and receive traffic information in respect of VFR flights, VFR flights receive traffic information in respect of all other flights.

Class E. IFR and VFR flights are permitted, IFR flights are subject to air traffic control service and are separated from other IFR flights. All flights receive traffic information as far as is practical.

Class F. IFR and VFR flights are permitted, all participating IFR flights receive an air traffic advisory service and all flights receive flight information service if requested.

Class G. IFR and VFR flights are permitted and receive flight information service if requested.

The requirements for the flights within each class of airspace are as shown in the following table.

Class	Type of flight	Separation provided	Service provided	VMC visibility and distance from cloud minima□	Speed limitation□	Radio communication requirement	Subject to an ATC clearance
A	IFR only	All aircraft	Air traffic control service	Not applicable	Not applicable	Continuous two- way	Yes
	IFR	All aircraft	Air traffic control service	Not applicable	Not applicable	Continuous two- way	Yes

[eAIP-SRCH-090]



# Bilingual PDF

- Outsourced to Synclude
- Test client Macedonia
- Results
  - eAIP DTD proposed changes
  - eAIP Toolbox changes
  - Partially validated, some development still necessary
  - Some other minor eAIP improvements
- More testing necessary
  - before incorporation in a new version
- To be included in 1.2?

#### 1. Bilingual eAIP

eAIP Specification Change	1.1.0-1	-	
Title:	Bilingual eAIP		
Type:	Major change	Affects:	
Summary:	Set of eAIP DTD changes to al- low bilingual content.		

#### **Detailed Description**

The need for bilingual content brings several changes throughout the eAIP DTD reaches 3 essential goals:

- · Keep monolingual eAIPs unaffected;
- · Define a semantic separation between the 2 languages, so that 2 mono produced from the same bilingual eAIP;
- · Define a bilingual content structure that allows both a column layout and

The following sections describe the structure of bilingual blocks.

#### Bilingual Blocks

A new element named e: Linguistic-block is introduced to support biling elements. This new element can be seen as a bilingual x:p element. Its conte

Choice: (e:Linquistic-columns!, e:Linquistic-rows!)

Editors can thus choose between a lay-out where the 2 languages are side by on top of the other.

Both elements e Linguistic-columns and e Linguistic-rows have the Sequence: (e:Linguistic-content!, e:Linguistic-content!)

This content model imposes exactly 2 language versions of the current block, content element. Editors are expected to set the xml: lang attribute on one of

The element erLinguistic-content has the same content model as the contain in-line elements and text.

#### Other Bilingual Content

the default xml: lang attribute on the root element.

The element e:Linguistic-content is also used to replace the content elements, which need bilingual in-line content. All these elements receive t

It is expected that style sheets would define the appropriate layout (columns of each of these elements. For example, all e-Abbreviation-details elements AIP Specimen

Part 1 - General (GEN) Part 1 — Général (GEN)

GEN 0

GEN 0.1 Préface

GEN 0.1 Preface 1 Name of the publishing authority The AIS ...... is published by authority of the Ministry of

1 Nom de l'autorité de publication L' AIS ...... est publié sous l'autorité du Ministère du

2 Applicable ICAO documents The AIP is prepared in accordance with no Standards

2 Documents OACI applicables L'AIP est publié en conformité avec aucun standard, quel

The AIP is prepared in accordance with the Standards and Recommended Practices (SARPs) of Annex 15 to the Recommandées (SARPs) de l'Annexe 15 de la Convention Convention on International Civil Aviation and the dell'Aviation Civile Internationale, et du Manuel des Services Aeronautical Information Services Manual (ICAO Doc 8126). d'Information Aéronautique (ICAO - Doc 8126). Les cartes Charts contained in the AIP are produced in accordance with Annex 4 to the Convention on International Civil Aviation and the Aeronautical Chart Manual (ICAO Doc des cartes aéronautiques (ICAO - Doc 8697). Les 8697) Differences from ICAO Standards Recommended - differences entre les Normes et Pratiques recommandées Practices and Procedures are given in subsection GEN 1.7.

L'AIP est publié en conformité avec les Normes et Pratiques sont produites en conformité avec l'Annexe 4 de la Convention de l'Aviation Civile Internationale, et du Manuel de l'OACI et la Réglementation nationale sont décrites en

3 The AIP structure and established regular amendment interval

3 Structure de l'AIP et intervales réguliers de

The AIP forms part of the Integrated Aeronautical Information Package, details of which are given in subsection GEN 3.1. The principal AIP structure is shown in graphic form in GEN 0.1 Figure 1

The AIP is made up of three Parts, General (GEN), En-route (ENR) and Aerodromes (AD), each divided into sections and

3 1 1 Part 1 - General (GEN)

Part 1 consists of five sections containing information as briefly described hereafter

GEN 0 . - Preface; Record of AIP Amendments; Record of AIP Supplements; Checklist of AIP pages; List of hand amendments to the AIP; and the Table of Contents to Part 1. GEN 1 .- National Regulations and Requirements - Designated authorities; Entry, transit and departure of aircraft; Entry,

transit and departure of passengers and crew; Entry, transit and departure of cargo; Aircraft instruments, equipment and flight documents; Summary of national regulations and international agreements/conventions; and Differences from ICAO Standards, Recommended Practices and Procedures

GEN 2 . — Tables and Codes - Measuring system, aircraft markings, holidays; Abbreviations used in AIS publications; Chart symbols; Location indicators; List of radio navigation aids; Conversion tables; and Sunrise/Sunset tables.

GEN 3. — Services - Aeronautical information services; Aeronautical charts; Air traffic services; Communication services; Meteorological services: and Search and rescue

GEN 4. — Charges for Aerodromes Heliports and Air Navigation Services - Aerodrome/heliport charges; and Air navigation



