New ICAO SARPs
ICAO AIM document framework

Workshop for the development of Operational skills for the transition from AIS to AIM for Civil Aviation Authorities (CAA) and Air Navigation Service Providers

28 May – 1 June 2018
Dakar

Gaston Liegeois
Directorate Network Manager
gaston.liegeois@eurocontrol.int

New ICAO SARPs
Contents

- New ICAO AIM Document framework
  - Overview
  - Differences with previous Annex 15 version

- Datasets description

ICAO AIM Document framework

Document	Function and Content	Primary Audience
Annex 15	Requirements and performance specifications	States
PANS-AIM	Procedures, processes, formats, technical specifications	States and service delivery organizations
AIS (AIM) Manual	Best practices; guidance on application and implementation	Service delivery organizations

- PAMS-AIM spans the gap between the guidance contained in Doc 8126 and the SARPs embodied in Annex 15

ICAO AIM Document framework
Annex 15 restructuring

- Re-development of chapters 4 to 11 and the restructuring of the existing SARPS into three new chapters:
  - *Chapter 4 - Scope of Aeronautical Data and Information*
  - *Chapter 5- Aeronautical Information Products and Services*
  - *Chapter 6 – Aeronautical Information Updates.*

11 Chapters
6 Appendices
(core +- **150p**)

→

Amdt 40

6 Chapters
(core +- **40p**)

Network Manager
nominated by
the European Commission

ICAO AIM Document framework
PANS-AIM

PANS-AIM

Since PANS primarily consist of material related to the standardization of how something is to be done material such as product specifications, standard procedures, and protocols are ideal material for promulgation as PANS.

- Appendix 1 of Annex 15 concerning the formatting of an AIP;
- Appendices 2, 3, 5, and 6 of Annex 15 and material from Doc 8126 concerning NOTAM, SNOWTAM, and ASHTAM; and
- Material from Doc 8126 concerning AIP, AIP Supplements and AIC where it is desirable to elevate the material to a status beyond guidance.
- Quality management practices and data handling to achieve integrity requirements

Network Manager
nominated by
the European Commission

ICAO AIM Document framework
PANS-AIM

Network Manager
nominated by
the European Commission

ICAO AIM Document framework
AIS Manual

- AIS Manual (Doc 8126) is being amended in conjunction with the restructured Annex 15 and new PANS-AIM
- Delete redundant elements
- Bring it in line with the latest Annex 15 and PANS-AIM technical changes
- Expand guidance (AIM organizational development, Data Catalogue, Service Level Agreements, etc.)
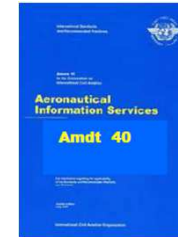
ICAO AIM Document framework
AIS Manual

- Volume **I**   AIM organisational development

- Volume **II**   Origination of aeronautical data and aeronautical information

- Volume **III**   Automation and electronic data exchange

- Volume **IV**   AIP, AIP supplements and AIC, including updates

- Volume **V**   NOTAM. SNOWTAM, ASHTAM

ICAO AIM Document framework
Planning and applicability

- Annex 15
    - New annex 15 date of applicability is 08-Nov-2018
    - Annex 15 contains SARPS of a more general nature, while the more detailed specifications are given in the AIS Manual (Doc 8126) and the new PANS-AIM (Doc 10066)
- PANS-AIM
    - New PANS-AIM adopted version is planned by June/July 2018
- AIS Manual
    - An update to the AIS Manual (Doc 8126) is planned by November 2018

ICAO AIM Document framework
Major changes - Definitions

- New
  - Aeronautical chart, Data completeness, Data format, Data timeliness, Data traceability, Next intended user, Origination (aeronautical data or aeronautical information), Originator (aeronautical data or aeronautical information)

- Changes
  - Data accuracy, Data integrity, Data quality, Data resolution, SNOWTAM

- Withdrawn
  - AIS product, Integrated Aeronautical Information package

- Replacement:
  - Term "published" replaced with the term "provided"
  - "Integrated Aeronautical Information Package" replaced by "AIM Product"

ICAO AIM Document framework
Major changes - Requirements

- **PANS-AIM Information management requirements (2.1)**
  - New processes for collection, processing, quality control and distribution have been defined

- **PANS-AIM Data origination requirements (4.1)**
  - Additional specifications

- **Annex 15 Data quality specifications (3.2)**
  - Additional characteristics of quality:
    - Timeliness, Completeness, Traceability and format

- **PAMS-AIM NOTAM (5.2.5, 5.4.2)**
  - Update of rules for NOTAM publication and distribution, and for which information SHALL/SHALL NOT be notified by NOTAM

Network Manager
nominated by
the European Commission

ICAO AIM Document framework
Major changes – Data sets and AIP

- Annex 15 AIP dataset (5.3.2)

  - *An AIP data set should be provided covering the extent of information as provided in the AIP*

  - *The AIP data set shall contain the digital representation of aeronautical information of lasting character (permanent information and long duration temporary changes) essential to air navigation*

  - *When it is not possible to provide a complete AIP data set, the data subset(s) that are available should be provided*

- Annex 15 Copyright (2.4.2)

  - *When aeronautical information and aeronautical data is provided to a State in accordance with 2.3.8 (digital data sets), the receiving State shall not provide digital data sets of the providing State to any third party without the consent of the providing State*

ICAO AIM Document framework
Major changes – Data sets and AIP

- ## PANS-AIM AIP (5.2.1)

  - When AIP data sets are published in a digital format, the corresponding part of the AIP may be left blank.

  - The following sections of the AIP may be left blank and a reference to the data set availability shall be provided

    1. *ENR 2.1 FIR, UIR, TMA*
    2. *ENR 3.1 Lower ATS Routes*
    3. *ENR 3.2 Upper ATS Routes*
    4. *ENR 3.3 Area Navigation (RNAV) Routes*
    5. *ENR 3.4 Helicopter Routes*
    6. *ENR 3.5 Other Routes*
    7. *ENR 3.6 En-route Holding*
    8. *ENR 4.1 Radio navigation aids — en-route*
    9. *ENR 4.4   Name-code designators for significant points*
    10. *ENR 4.5 Aeronautical Ground Lights — En-route*
    11. *ENR 5.1 Prohibited, Restricted and Danger Areas*
    12. *ENR 5.2 Military exercise and training areas and air defence*
    13. *ENR 5.3.1 Other activities of a dangerous nature*
    14. *ENR 5.5 Aerial sporting and recreational activities*
    15. ***** *AD 2.19 Radio navigation and landing aids*
    16. ***** *AD 3.18 Radio navigation and landing aids*

ICAO AIM Document framework
Major changes – Aeronautical information updates

- PANS-AIM Specifications for NOTAM (6.1.4)

  - PERM NOTAM information shall within 3 months be included in the Aeronautical Information products affected

  - Temporary NOTAM information of long duration shall within 3 months be published as AIP SUP

  - EST NOTAM exceeding 3 months validity shall be replaced by NOTAMR, or information be published as AIP SUP

ICAO AIM Document framework
Major changes – Digital data sets

- Digital data sets (5.3) - Two new datasets:

  - AIP Data Set – Digital data necessary for flight-planning and en-route navigation (routes, navaids, points, airspace, airport, etc.)

  - Instrument Flight Procedures Data Sets – Digital representation of SID, STAR and Approach Procedures for airports

- Those two new data sets complement the data sets that were already specified in the Annex 15:

  - Obstacle data sets

  - Terrain data sets

  - Aerodrome mapping data sets

Detailed specifications concerning the content of the digital data sets are contained in the PANS-AIM Appendix 1 – Data Catalogue

ICAO AIM Document framework
PANS-AIM Appendix 1 - Data Catalogue

EUROCONTROL

- Description of the AIM data scope

- A common language to facilitate the formal arrangements between data originators and the aeronautical information service

- Single source of all data quality requirements

- Allow the verification of correctness of received data

- Support further electronic processing without any future human intervention

Subject	Property	Sub-Property	Type	Description	Note	Accuracy	Integrity	Orig Type
				Table A 1-1 Aerodrome/Heliport data				
Aerodrome / Heliport				A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.				
	Designator			Designator of the aerodrome / heliport				
		ICAO location indicator	Text	The four letter ICAO location indicator of the aerodrome/heliport, as listed in ICAO DOC 7910 (Location Indicators).	if any			
		Designator IATA	Text	The identifier that is assigned to a location in accordance with rules (resolution 767) governed by the International Air Transport Association (IATA).	if any			
		Other	Text	A locally defined airport identifier, if other than an ICAO Location Indicator				
	Name		Text	The primary official name of an aerodrome as designated by an appropriate authority.				
	Served city		Text	The full name of the city or town the aerodrome/heliport is serving				
	Type of traffic permitted							
		International_national	Code list	Indication if international and/or national flights are permitted at the aerodrome/heliport				
		IFR_VFR	Code list	Indication if IFR and/or VFR flights are permitted at the aerodrome/heliport				
		Sched_nonsched	Code list	Indication if scheduled and/or nonscheduled flights are permitted at the aerodrome/heliport				
		Civil_military	Code list	Indication if civil commercial aviation and/or general aviation and/or military flights are permitted at the aerodrome/heliport				
		Restricted_use	Text	Indication if an aerodrome or heliport is not open for the public (Only for the use of the owners).				

Network Manager
nominated by
the European Commission

ICAO AIM Document framework
PANS-AIM Appendix 1 - Data Catalogue

List of subjects:

- Table A1-1 Aerodrome data

- Table A1-2 Airspace data

- Table A1-3 ATS and other routes data;

- Table A1-4 Instrument flight procedure data

- Table A1-5 Radio navigation aids/systems data

- Table A1-6 Obstacle data

- Table A1-7 Geographic data

- Table A1-8 Terrain data

- Table A1-9 Data types

- Table A1-10 Information about national and local regulations, services and procedures

→ *Aeronautical data catalogue*