



AFI Air Navigation Deficiencies Workshop

Minimum reporting Areas – AIM

Dakar/ November 2021



Outline

- Introduction
- NOTAM service
- Cartography service
- Aeronautical Information Publication service
- Pre-flight briefing service
- Post-flight information service



Introduction

Annex 15 (Sixteenth Edition, July 2018) - Chapter 2

- The **responsibilities** of the **State** regarding the **provision** of aeronautical information **service** is clearly stated through standards under section 2.1 “State responsibilities”
- Furthermore, section 2.2 “AIS responsibilities and functions” outlines the **obligations** of **AIS** in **providing** aeronautical **data** and aeronautical **information** necessary for the **safety**, **regularity** and **efficiency** of air navigation, in a **timely** manner and in the **formats** that fit the need of users.



Introduction

Annex 15 (Sixteenth Edition, July 2018) - Chapter 2

- **Standard 2.1.1**: Each **Contracting State** shall:
 - a) **provide** an **aeronautical information service** (AIS); or
 - b) **agree** with one or more other Contracting State(s) for the **provision** of a **joint service**; or
 - c) **delegate** the authority for the **provision** of the service to a **non-governmental agency**, provided the **Standards and Recommended Practices** of this Annex are **adequately met**.



Introduction

Annex 15 (*Sixteenth Edition, July 2018*) - **Chapter 2**

- **Standard 2.1.2**: Each Contracting State shall **ensure** that the **provision** of aeronautical **data** and aeronautical **information covers** its **own territory** and those **areas over the high seas** for which it is **responsible** for the provision of **air traffic services (ATS)**.
- **Standard 2.1.3**: The State concerned shall remain **responsible** for the aeronautical **data** and aeronautical **information provided** in accordance with **2.1.2...**



Introduction

Annex 15 (*Sixteenth Edition, July 2018*) - **Chapter 2**

- **Standard 2.1.4**: Each Contracting State shall **ensure** that the aeronautical **data** and aeronautical **information provided** are of **required quality**...
- **Standard 2.1.5**: Each Contracting State shall **ensure** that **formal arrangements** are established between **originators** of aeronautical data and aeronautical information and the **AIS** in relation to the **timely** and **complete provision** of aeronautical **data** and aeronautical **information**.



Introduction

Basic Building Block (BBB) framework

- The **BBB framework** identifies the **essential services** to be **provided** for international civil aviation **in accordance** with **ICAO Standards**. These essential services are defined in the *areas of aerodromes, air traffic management, search and rescue, meteorology and aeronautical information management (AIM)*.
- AIM essential services include: **NOTAM** service, **Cartography** service, **Aeronautical Information Publication (AIP)** service, **Pre-flight briefing** service and **Post-flight information** service.



NOTAM Service

- In order to meet the **operational needs** of the users, it is **essential** to provide **timely information** that **fits** for purpose.
- Lack of **timely issuance** of **relevant NOTAM** about **status** and **condition** of air navigation services infrastructure can **affect** the **safely** and **efficient conduct** of flight operations.



NOTAM Service

- A NOTAM to be issued **promptly** for **temporary** and **short duration** information
- or **operationally significant** permanent or temporary **changes** of long duration with **short notice**
- A15 - 6.3.2.3 **Prescription** of NOTAM issuance
- A15 - 6.3.2.4 **Prohibition** of NOTAM issuance
- **Prevent NOTAM proliferation**



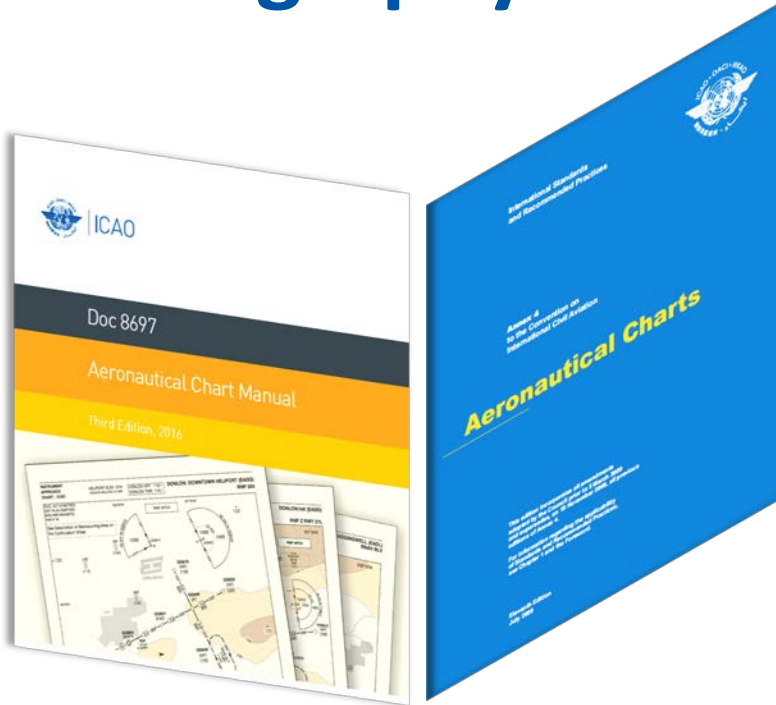
Annex 15:
ch 6

PANS-AIM:
ch 6, app
3,4,5,7

Doc 8126, ch 6



Cartography service



- Annex 4 requires each Contracting State to **ensure the availability** of the **required charts** either by producing the charts **itself**, or by arranging for production by **another Contracting State** or by an **agency**.

Annex 15: ch 5,
Annex 4: all ch

PANS-AIM: ch 5,
app 2
PANS-OPS: I, ch 9

Doc 8697

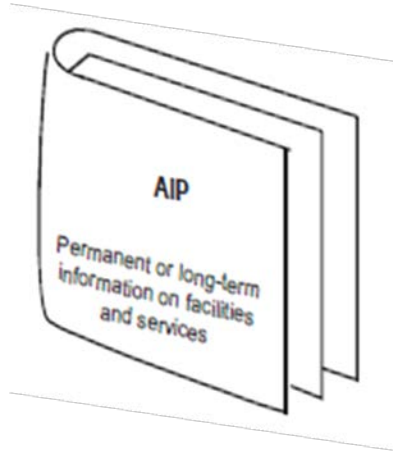


Cartography service

- Non-production of aeronautical charts appropriate to the State
- Absence of relevant full list of Aeronautical Chart
- Absence of regular updates of charts
- **Lack of critical information essential for safety of air navigation**



Aeronautical Information Publication service



- **AIP** is the **basic source** for aeronautical information of **permanent** and **long duration** nature.
- Non-provision of an AIP that is **standard formatted**, of **quality-assured** and **regularly updated** can jeopardize the safety of air navigation.

Annex 15: ch 5

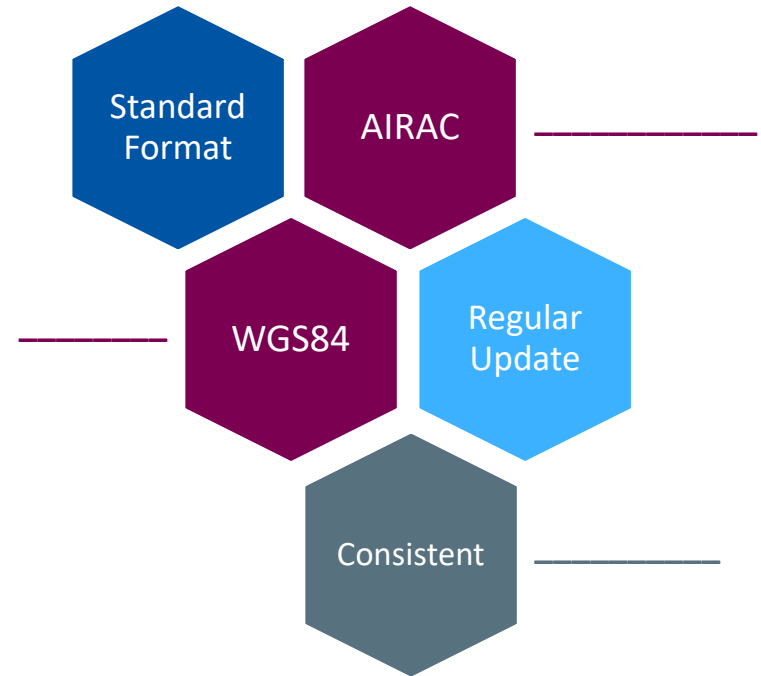
PANS-AIM ch 5,
app 2
PANS-OPS: III,
section 5

Doc 8126, ch 5



Aeronautical Information Publication service

- Easily locate essential safety information on conditions of services
- Common reference systems for consistent interpretation of data and information and to facilitate their timely exchange
- Prevent use of obsolete information in flight operations
- Prevent conflicting/misleading information within the different sections





Pre-flight briefing service



- For any aerodrome used for **international air operations**, aeronautical information of **operational significance** relative to the **route stages originating** at the **aerodrome** shall be provided to **flight operations** personnel.
- Lack of **pre-flight information** can affect flight **planning** and **safety** of air navigation.

Annex 15: ch 5

PANS-AIM ch 5

Doc 8126, ch 8



Post-flight information service

- Information on the **state** and **operation** of air navigation **facilities** or **services**, or information relative to the **presence of wildlife hazards** reported by **flight crews** is essential for the **safety** of **other flights**.
- For any aerodrome used for **international air operations**, arrangements to be made for the **reception** of **reports** from flight crews.
- Reports to be **available** to the **AIS** for **distribution** as the circumstances necessitate.
- Lack of **post-flight information service** will fail to update AIS with **operational significant information** noted by flight crews.

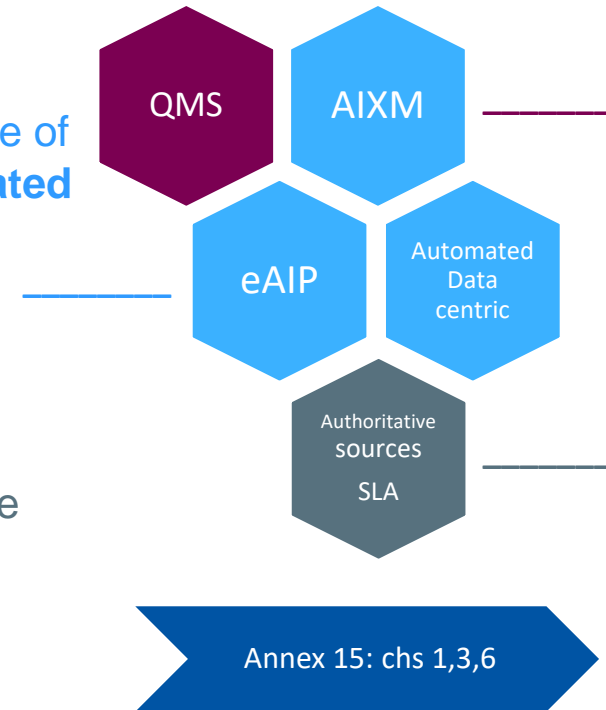
Annex 15: ch 5

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Quality-assured aeronautical data and information

- Ensure data and information compliance with the required standards
- Management, processing, verification, usage and exchange of aeronautical data and information in a **structured, automated system, reducing human intervention**
- Digital aeronautical data exchange between the parties involved in the data processing chain through use of aeronautical information exchange models
- Control of relationships along the whole data chain from the **origination** to the **distribution** to the next intended user





Digital terrain data sets

- The need for **interoperable exchange** of terrain data requires **providing** the data in **digital form** and complying with **digital data exchange** requirements.
- Consists in the **replacement** of **existing terrain data** by **digital terrain data sets**.
- This element supports the migration to a **data-centric** environment where **terrain data** will be **provided** in a **digital form** and in a **structured way**.



Digital obstacle data sets

- The need for **interoperable exchange** of **obstacle data** requires providing the data in **digital form** and complying with **digital data exchange** requirements.
- This element consists in the **replacement** of **existing obstacle data** by **digital obstacle data sets**.
- Supports the migration to a **data centric** environment, obstacle data provided in a **structured** and **digital form** through the use of **information exchange models, AIXM**.



ICAO

North American
Central American
and Caribbean
(NACC) Office
Mexico City

South American
(SAM) Office
Lima

ICAO
Headquarters
Montréal

Western and
Central African
(WACAF) Office
Dakar

European and
North Atlantic
(EUR/NAT) Office
Paris

Middle East
(MID) Office
Cairo

Eastern and
Southern African
(ESAF) Office
Nairobi

Asia and Pacific
(APAC) Sub-office
Beijing

Asia and Pacific
(APAC) Office
Bangkok



THANK YOU