ICAO UNITING AVIATION

References for the AIM Work Plan

Aeronautical Information Manager (AIM)
Regional Officer

ICAO NACC Regional Office /11 May2021

Aviation System Block Upgrade (ASBU)

Annex 15 and PANS-AIM implementation

What is the difference?

- **Annex = performance based SARPs**
- **PANS = technical & procedural provisions**
- **Elevate certain procedures from guidance to PANS**
- **Support data centricity with processes and procedures**
- **Support interoperability**
- **PANS deviation to be published in AIP only (Differences)**

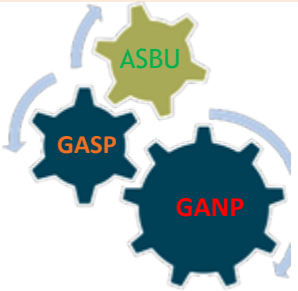
  Supports stepwise transition/migration

Trends to Assembly 41 (2022)

GANP, ASBU, AIM, IM (SWIM)

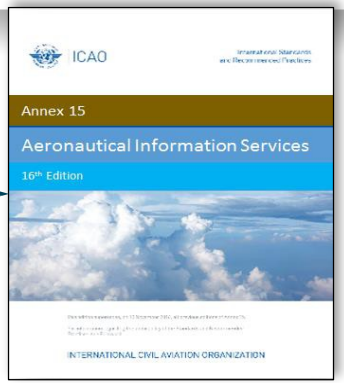
Digital AIM (DAIM) is part of it

- GANP – Global Air Navigation Plan
- GASP - Global Aviation Safety Plan
- ASBU Document

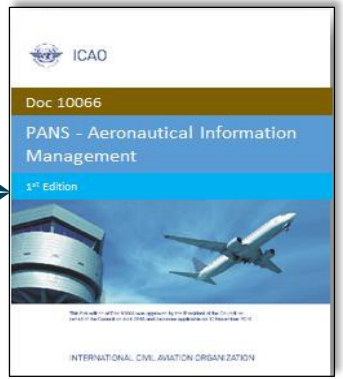


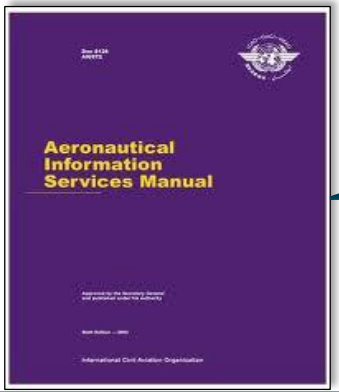
AIS to AIM

State Provisions (what)

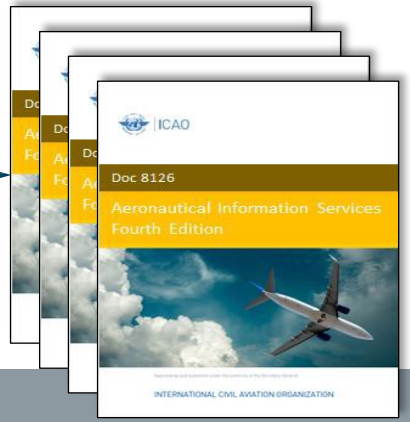


Operational Provisions
AIM Practitioners instructions
(how to)





Guidance (explanations)



FOCUS on Data Centric Approach

Split of data origination from data publication requirements

- **Introduction of the aeronautical data catalogue**
- **Introduce digital data sets**

Aeronautical information product (standard or electronic)

Data quality requirements at one place (PANS-AIM)

- **Separating obstacles & terrain**
- **Bring in AMDB harmonised**
- **NOTAM improvement proposal**
- **CRC performance-based requirements**

Rules

- Properties
- Parameters
- Models

Annexes: 2, 3, 4, 5, 7, 9, 10v1, 10v2, 10v3, 10v5, 11, 12, 13, 14v1, 14v2, 15, 16v1, 16v2, 17, 18, 19

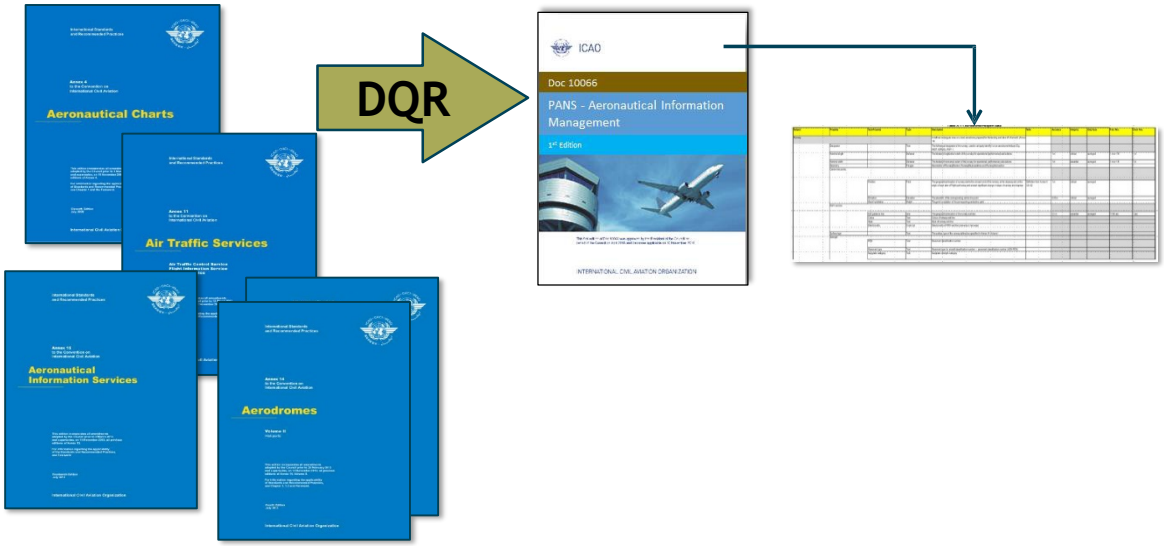
- **PANS-AIM** - Data catalogue - Data Management
- **PANS-OPS**

• ICAO Data Catalogue

1. Aerodrome data
2. Airspace data
3. ATS & other routes data
4. Instrument Flight Procedure data
5. Radio Navigation aids/systems data
6. Obstacle data
7. Geographic data
8. Terrain data
9. Data types
10. Information about national and local regulation, services and procedures

• Data Quality Requirements (DQR)

Annexes: 4, 11, 14, 15, PANS-AIM and PANS-OPS



Data quality. A degree or level of confidence that the data provided meet the requirements of the data user in terms of accuracy, resolution, integrity (or equivalent assurance level), traceability, timeliness, completeness and format.

DQR Components

Data accuracy
- A degree of conformance between the estimated or measured value and the true value

Data integrity
- (assurance level). A degree of assurance that an aeronautical data and its value has not been lost or altered since the origination or authorized amendment

Data resolution
- A number of units or digits to which a measured or calculated value is expressed and used

Data timeliness
- The degree of confidence that the data is applicable to the period of its intended use

Data tracebility
- The degree that a system or a data product can provide a record of the changes made to that product and thereby enable an audit trail to be followed from the end-user to the originator.

Data Completness
- The degree of confidence that all of the data needed to support the intended use is provided.

Origination Type	Meta Data	Format
Calculated	Collected for process & exchange points	Descretion of State
declared	Provided with each data set	Note: Commonly used data encoding formats
surveyed	ISO 19115	Note: XML, GML, JSON

PANS-AIM Data Sets

- Exchange between data providers and data users *(ISO 19100)*
- Based on a product specification *(ISO 19131)*
- Common encoding models *(UML, XML, GML, JSON)*
- Complemented by charts, maps & diagrams
- Metadata *(ISO 19115)*

- AIP data set
- Terrain data set
- Obstacle data set
- Aerodrome mapping data set (shall be supported by terrain & obstacle data for area 3)
- IFP data set
- Distribution
  - Different ways
  - SWIM

Formal Arrangements

Between

Formal Arrangements

- Originators & State AIM
- *Also parties acting on behalf of States (recommendation)*

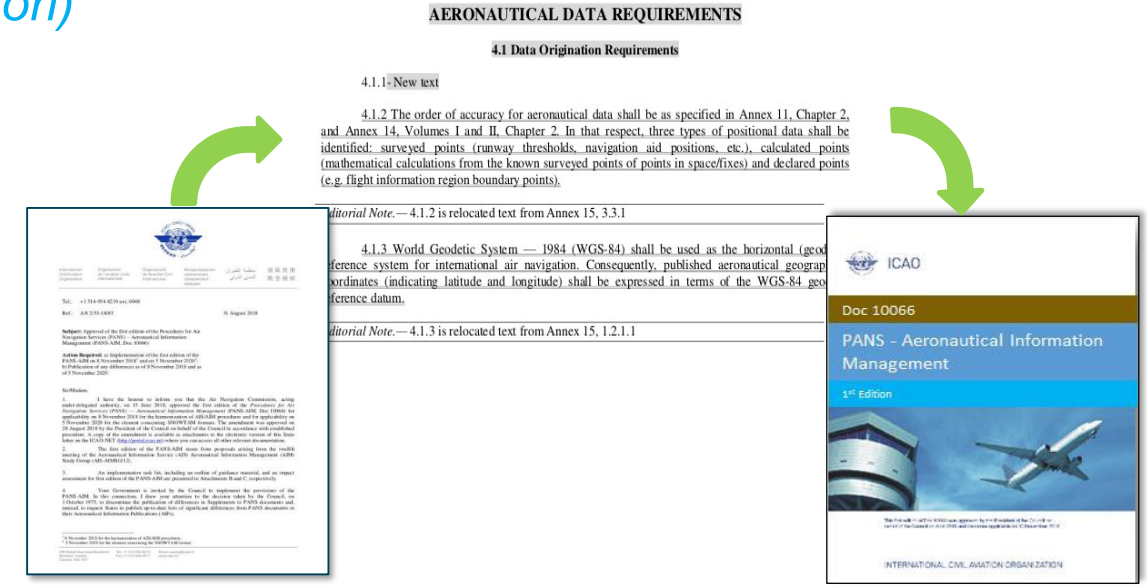
Minimum Content

Regulatory framework

- Data origination
- Quality assurance
- Metadata and quality reporting
- Data delivery
- Error handling

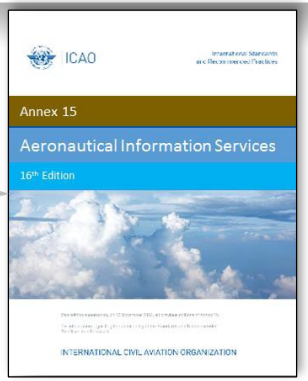
State Letter could be used

- Identification and understanding what is really NEW is most important

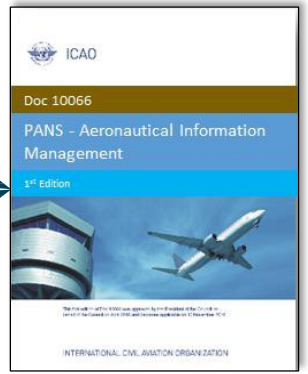


Changes

State provisions



About 120 text relocations



About 20 text relocations

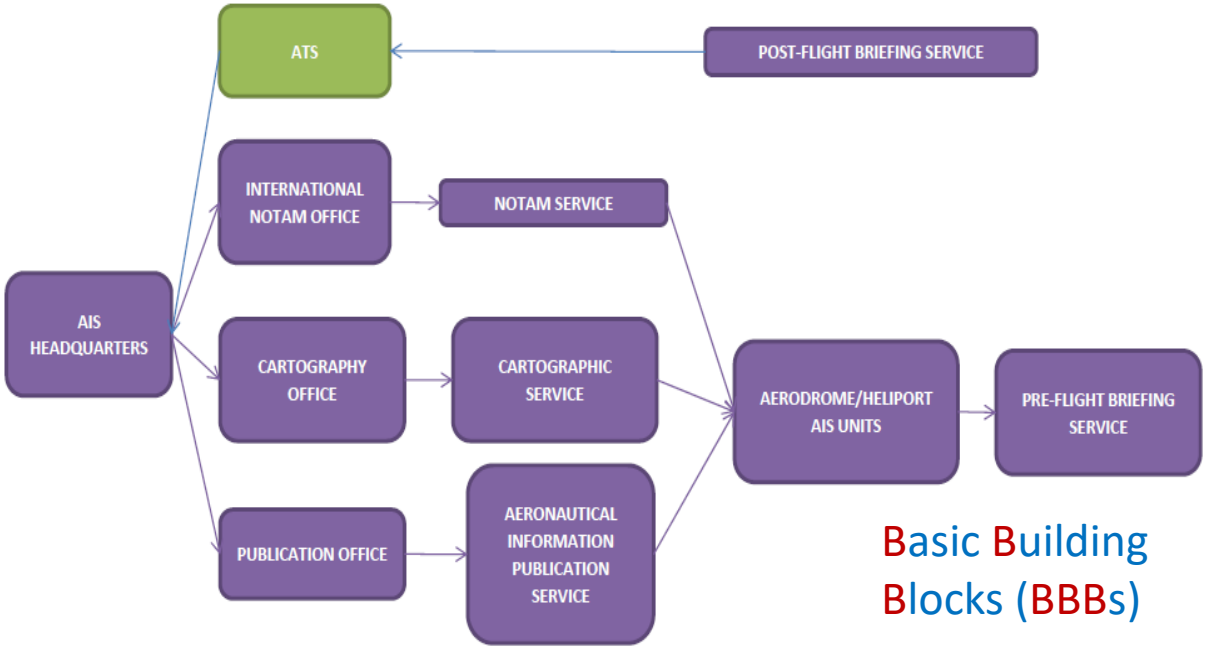
Guidance / Explanations

Planning and Implementation

Global Air Navigation Plan

6th. Edition (**GANP** online)

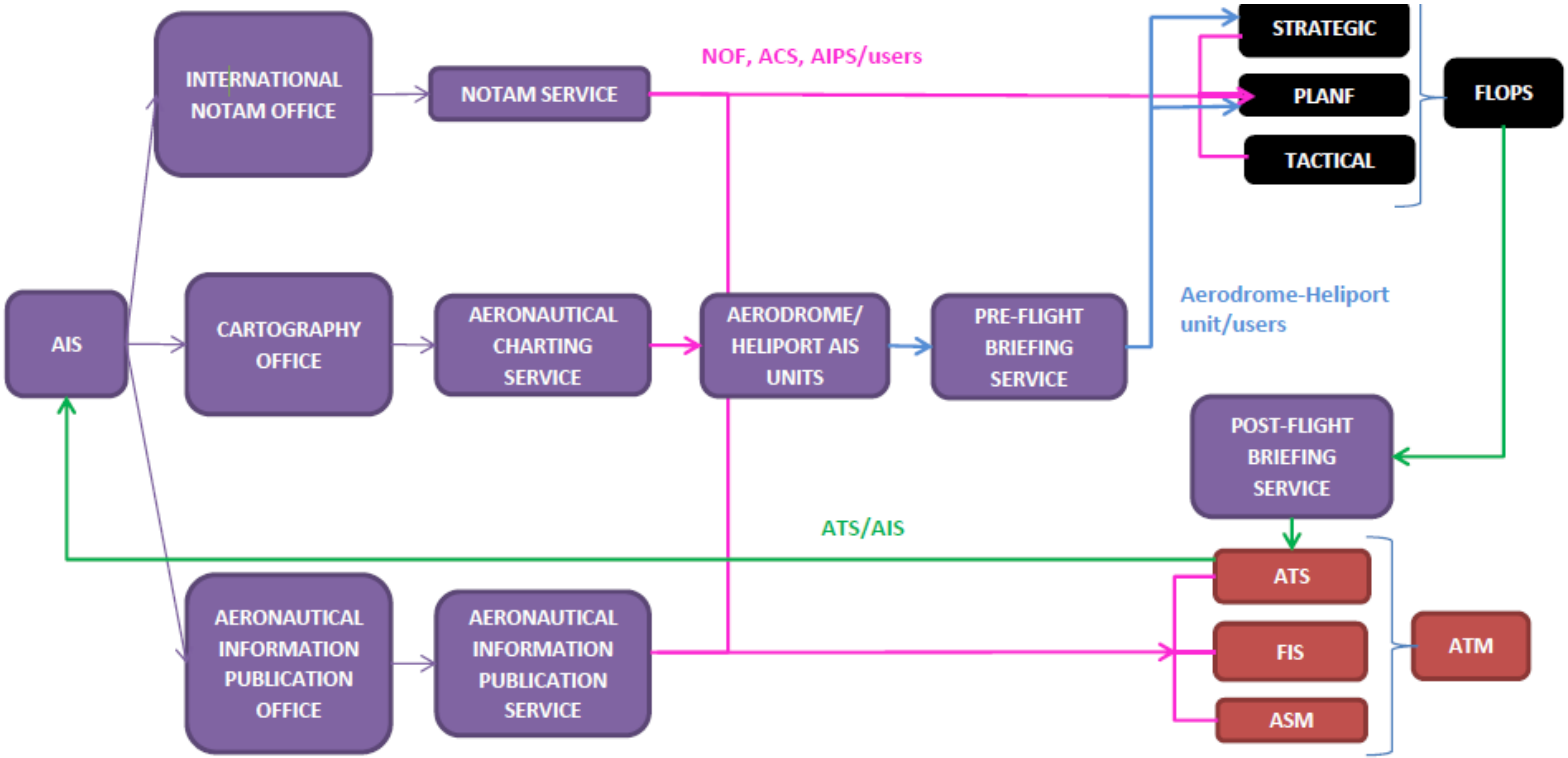
AIM (AIS) BASIC MODULES AND ELEMENTS



Basic Building Blocks (BBBs)

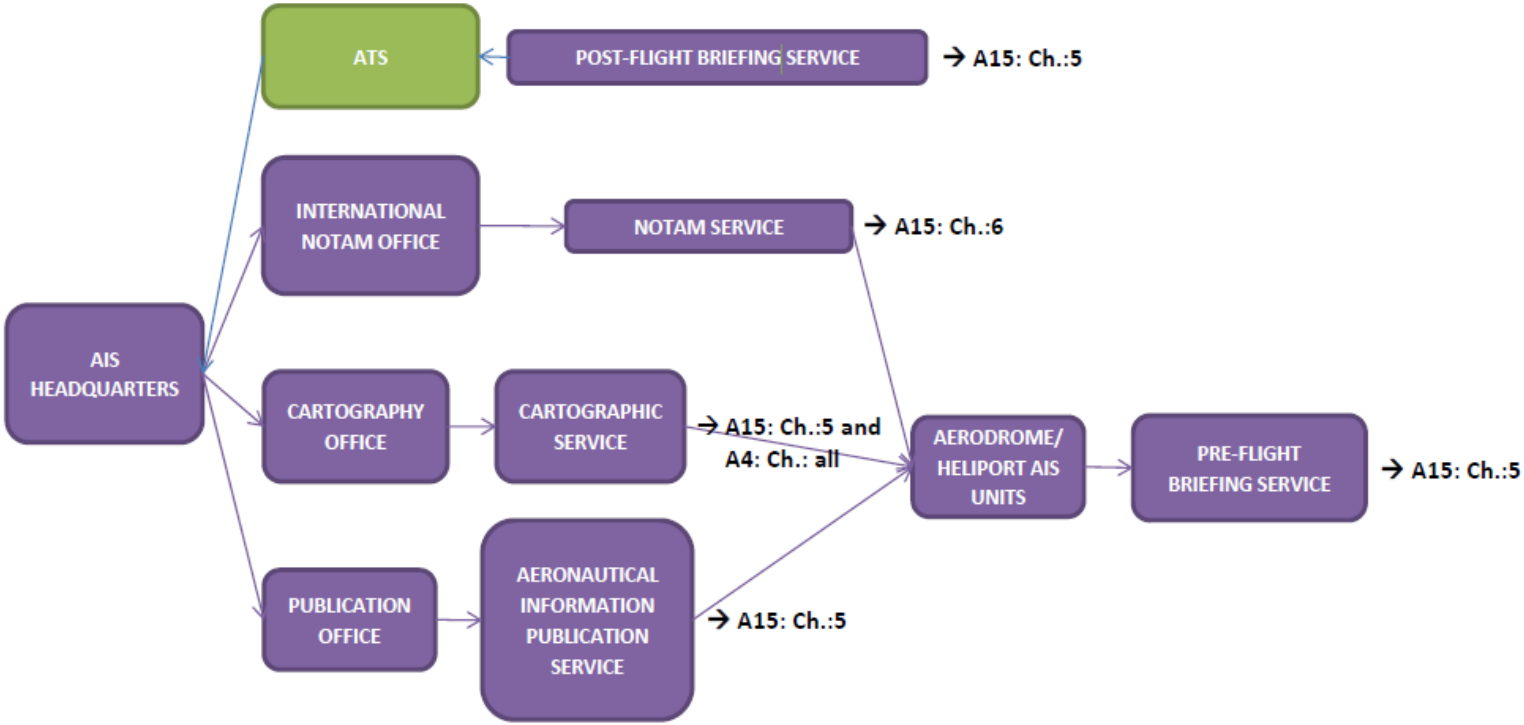
Planning and Implementation

AIM (AIS) BASIC MODULES AND ELEMENTS



Planning and Implementation

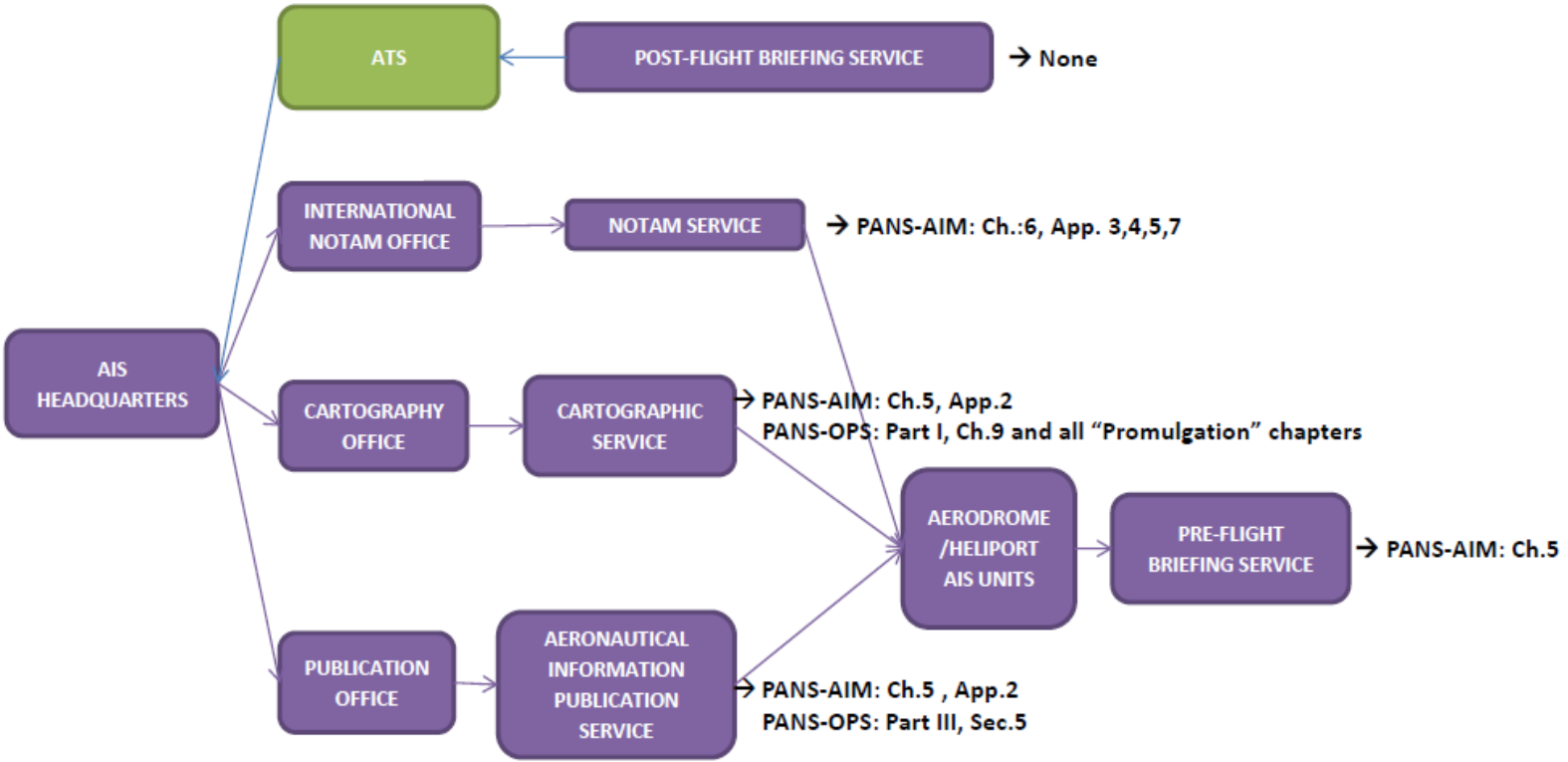
AIM (AIS) BASIC MODULES AND ELEMENTS



REFERENCES ICAO SARPs
Annexes 4 and 15

Planning and Implementation

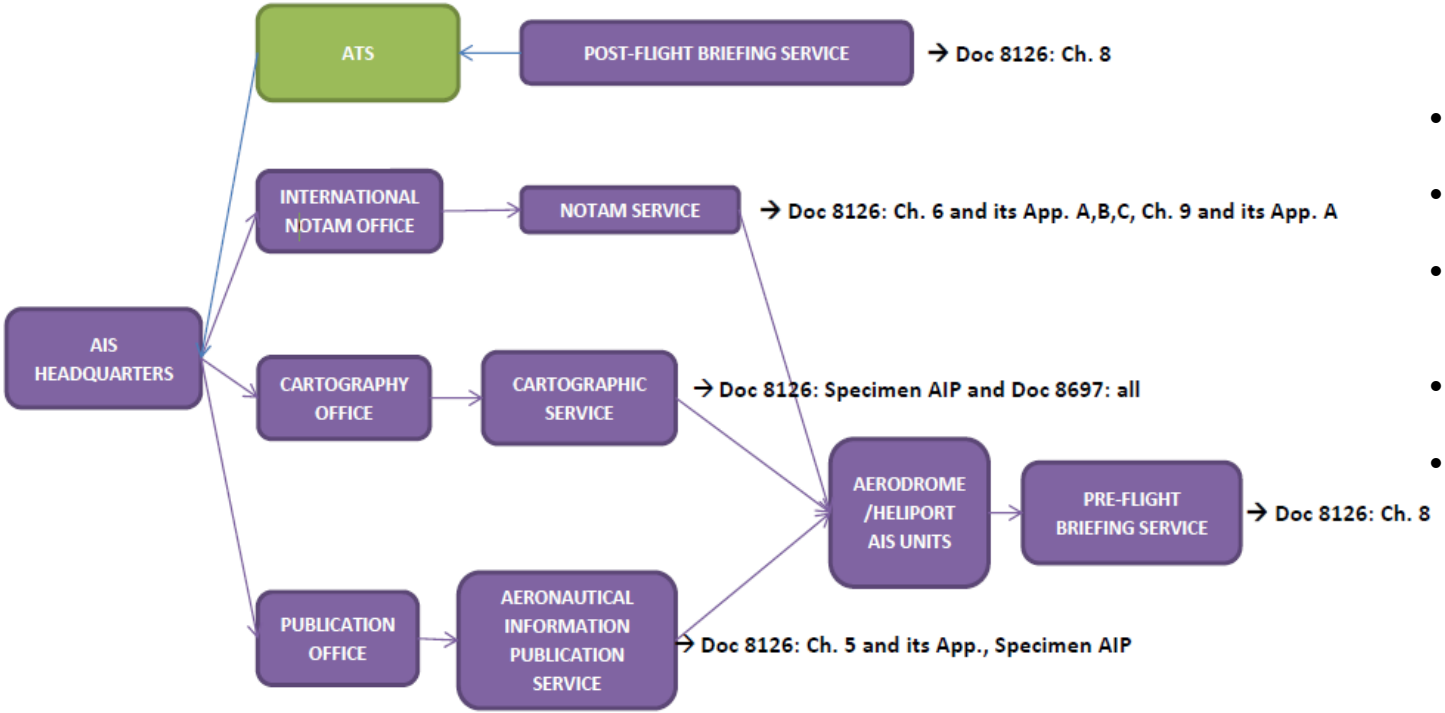
AIM (AIS) BASIC MODULES AND ELEMENTS



REFERENCES ICAO Procedures
PANS AIM – PANS OPS

Planning and Implementation

AIM (AIS) BASIC MODULES AND ELEMENTS



REFERENCES ICAO Guidance

- Annex 15: Aeronautical Information Services
- Annex 4: Aeronautical Charts
- PANS-AIM (Doc 10066): Aeronautical Information Management
- PANS-OPS (Doc 8168): Aircraft Operations
- Doc 8126: Aeronautical Information Services Manual

ICAO

THANK YOU