



| ICAO

INTERNATIONAL CIVIL AVIATION ORGANIZATION

A UN SPECIALIZED AGENCY

AIM RBIS Project assistance
Organizational framework

QMS Go-team



Organizational Structure of AIS

AIM RBIS Project assistance

QMS Go-team

Outline

01 Responsibilities of AIS provider

02 Functions performed by AIS provider

03 Modes of operation

04 Product-centric
Organizational structure

05 Process-oriented
organizational structure

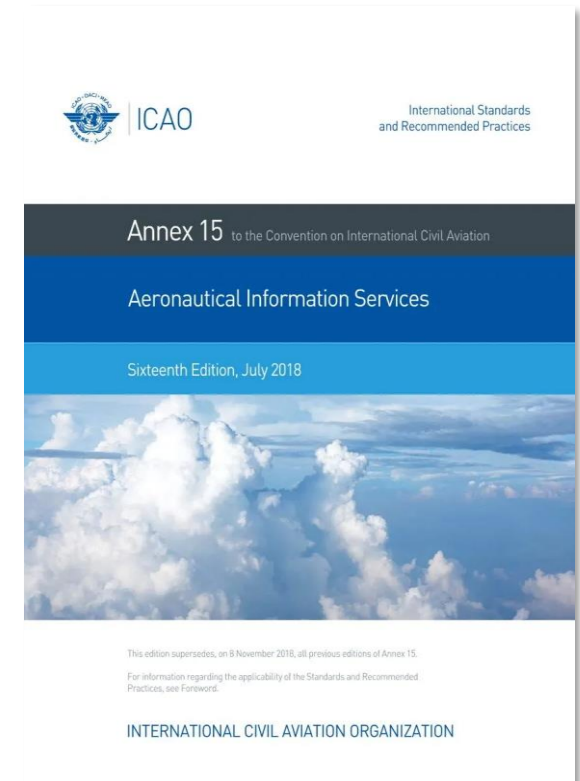
06 Resources and Personnel

Responsibilities of AIS provider

4

Annex 15 - 2.2 AIS responsibilities and functions

- 2.2.1 AIS shall **ensure** that aeronautical **data** and ... **information** necessary for the **safety**, **regularity** and **efficiency** of air navigation are made **available** in a **form suitable** for the operational requirements of the ... ATM.
- 2.2.2 AIS shall **receive**, **collate** or **assemble**, **edit**, **format**, **publish/store** and **distribute** aeronautical **data** and ... **information** concerning the entire **territory** of the **State** ... areas over the **high seas** for which the State is responsible for the **provision of ATS**. Aeronautical data and aeronautical information shall be provided as **aeronautical information products**.
- 2.2.4 AIS shall ... **obtain** aeronautical **data** and ... **information** to enable it to **provide pre-flight information service** and to meet the need for **in-flight information**: a) from the **AIS of other States**; and b) from **other sources** that may be available.



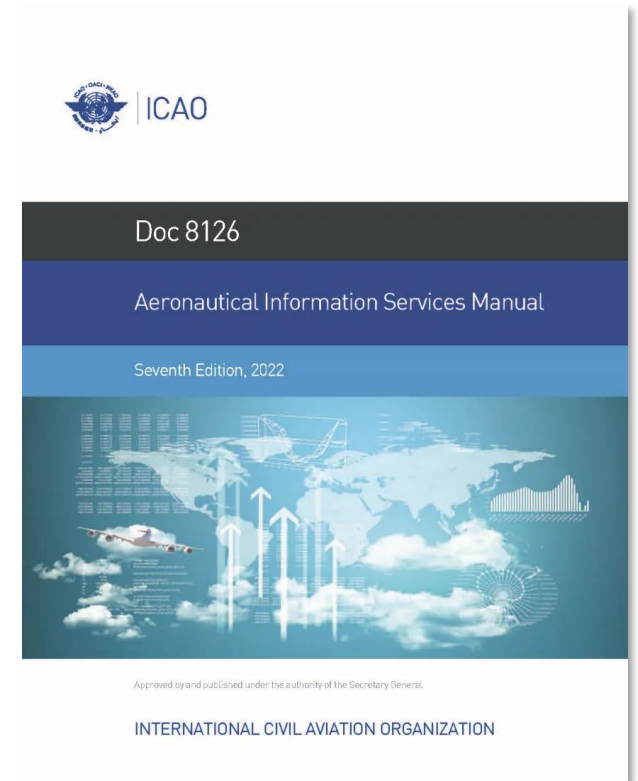
Functions performed by AIS provider

5

Doc 8126 - 3.1.2 AIS provider core and non-core functions

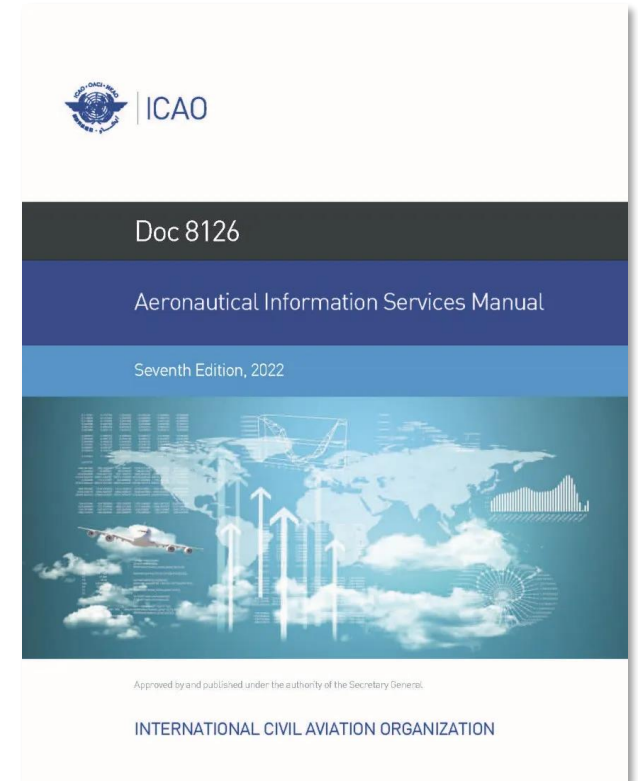
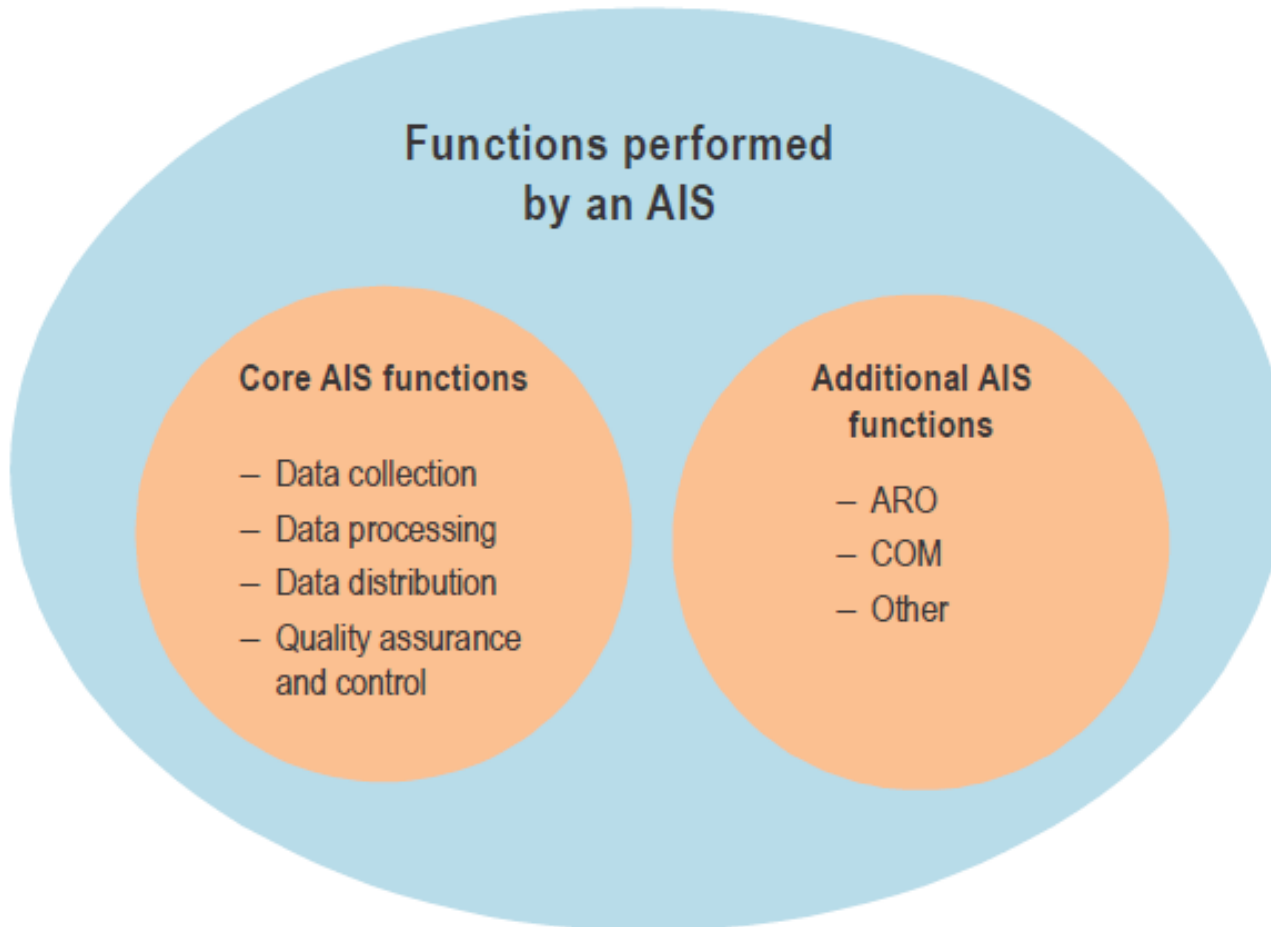
➔ AIS provider performs the following functions:

- a) core AIS functions including to **collect, process, store, quality control** and **distribute** aeronautical information; and
- b) non-core AIS functions including, but not limited to, **additional air navigation functions** such as operating the **ARO**, and other functions based on the need to **better utilize** the 24/7 AIS operations by leveraging available AIS competencies.



Functions performed by AIS provider

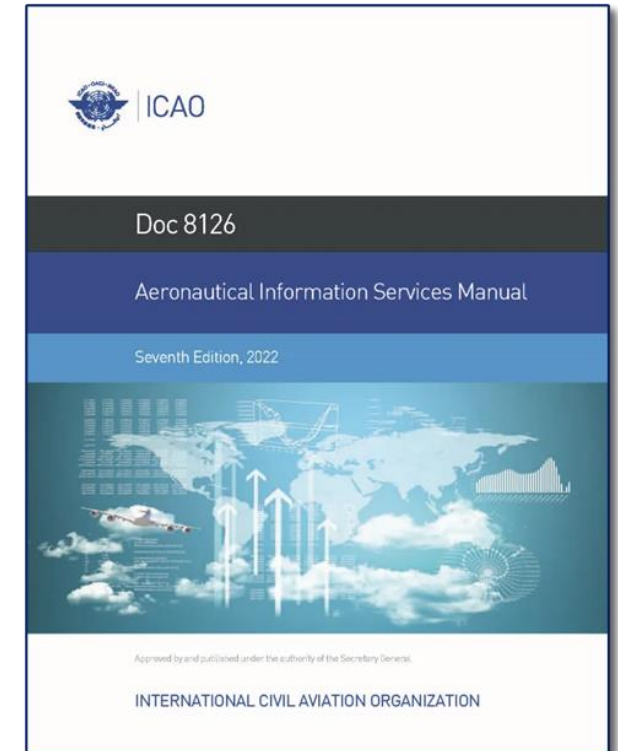
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Doc 8126 - 3.2.1 Modes of operation

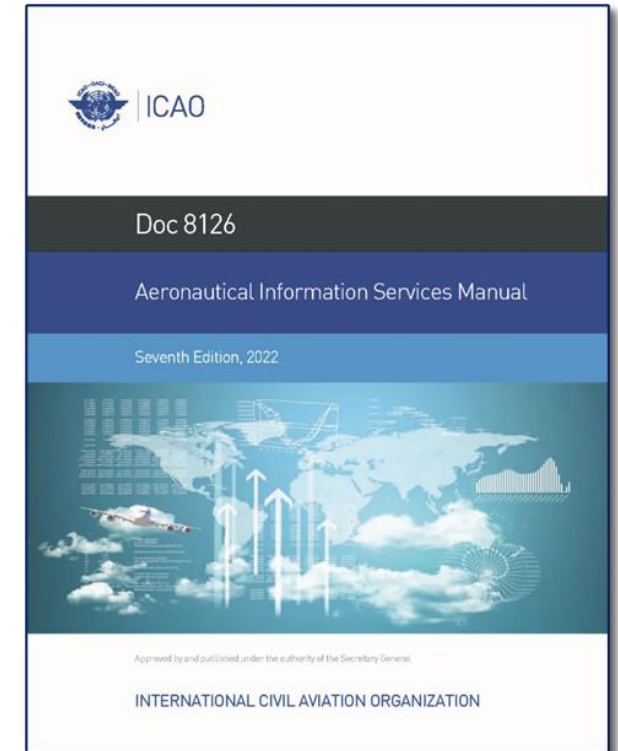
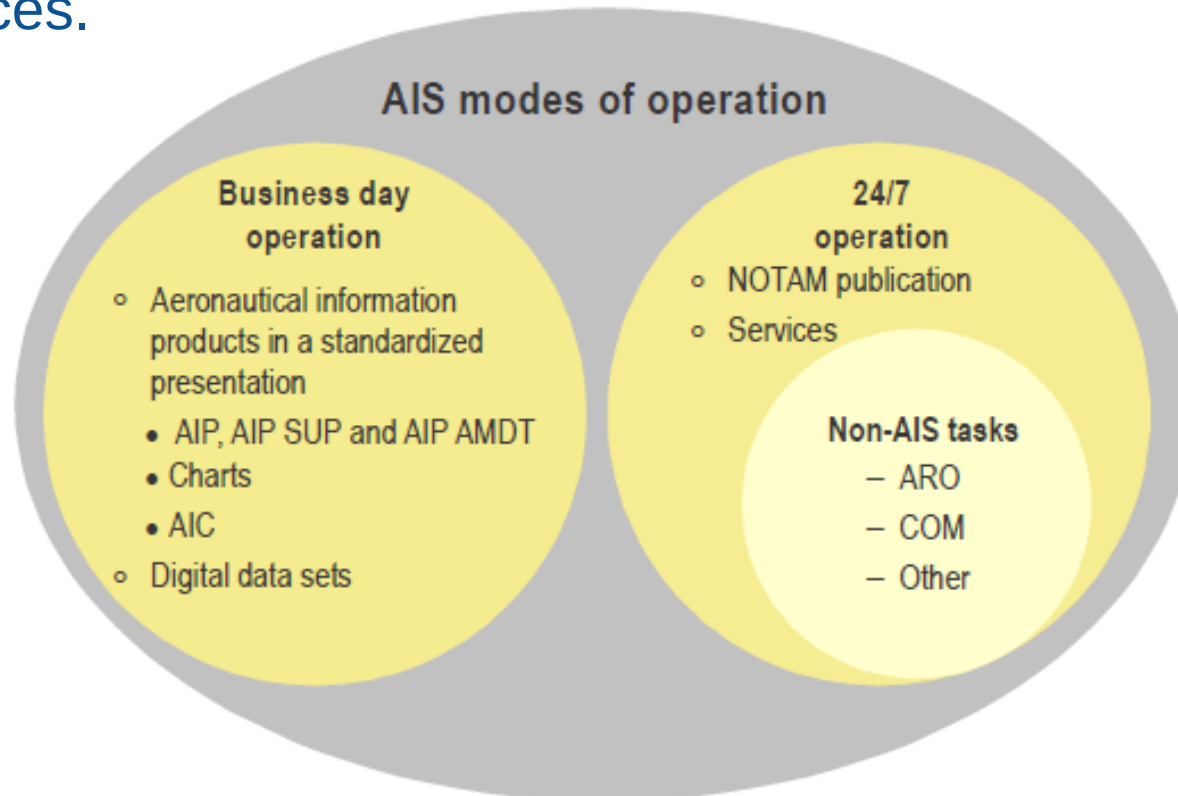
➔ An AIS organization is responsible for providing AIS in two different modes of operation, based on the nature of the data and information provided; namely:

- a) aeronautical **data** and aeronautical **information** which are processed according to the **AIRAC schedule** require **normal business day operation**; and
- b) aeronautical **data** and aeronautical **information** with a requirement for **immediate distribution** (e.g. NOTAM) require **24/7 operation**.



Doc 8126 - 3.2.1 Modes of operation

➔ ... many AIS organizations take on additional **information** related **tasks** (e.g. **ARO**, **COM**) to better utilize their 24/7 resources.



Doc 8126 - 3.2.2 Organizational structure

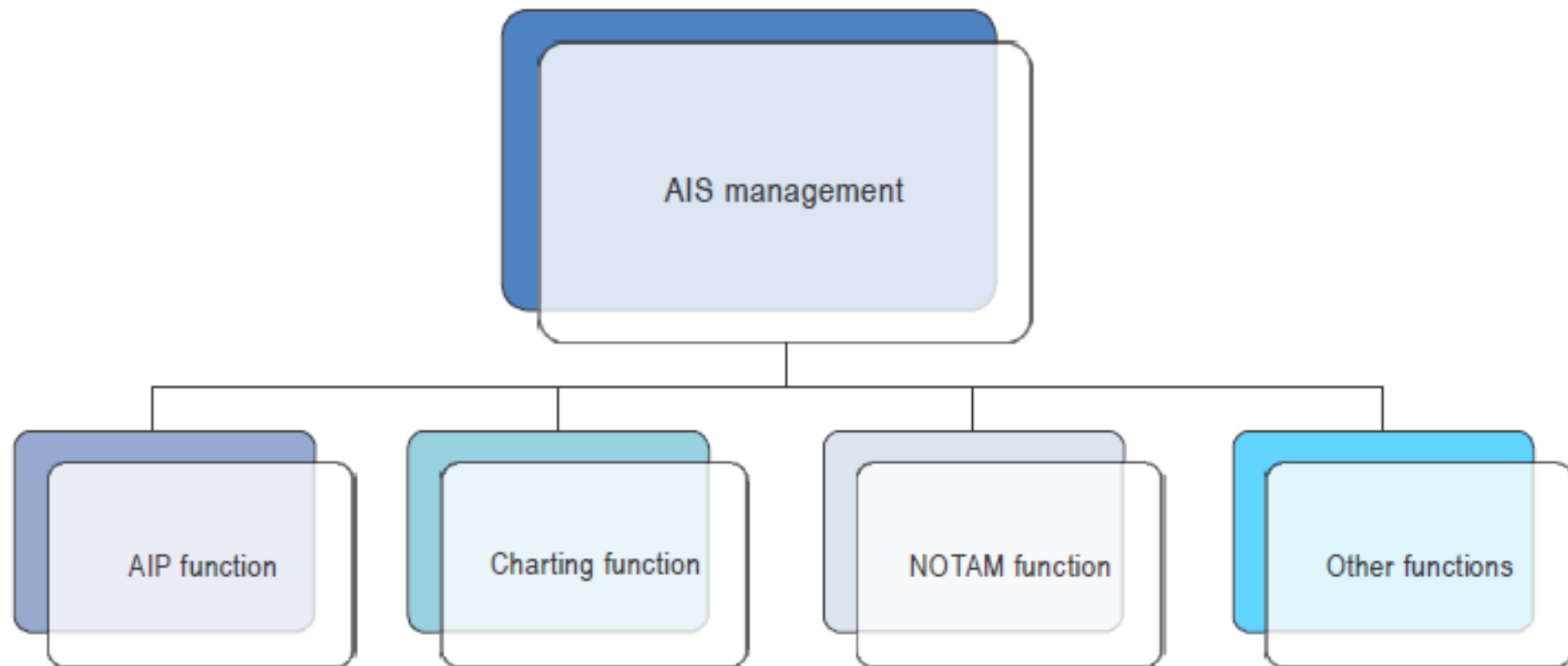
- ➔ Different types of **AIS organizational structures** exist, depending on the assigned **core AIS tasks** and additional delegated tasks.
- ➔ Many AIS organizations were setup to meet the requirements for an optimized **product-centric approach**, with a **focus** on products like **AIP production**, aeronautical **charts production**:
- ➔ The **product-centric** organization is **not optimal** to support **data-centric AIM**. Data-centric operations require a **process approach** to **manage** aeronautical information from **origination** to **distribution** to the **next intended user**, as required by a **QMS**.

Product-centric Organizational structure

10

Doc 8126 - 3.2.2 Organizational structure

Product-centric organization



Doc 8126 - 3.2.2 Organizational structure

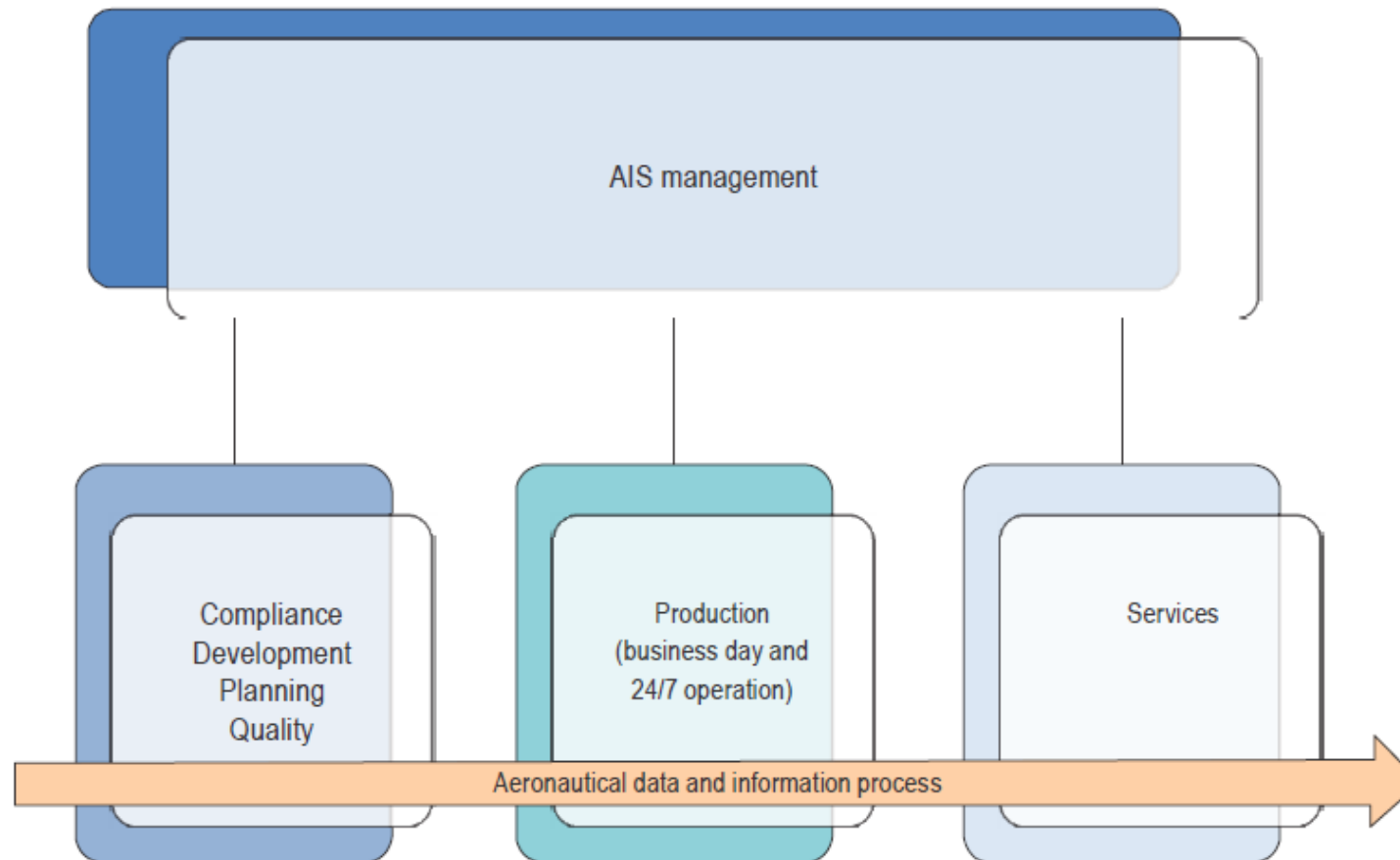
- ➔ Understanding of the **AIS processes** is important, since ensuring the **quality** of **aeronautical data** and **aeronautical information** depends on the **way** the AIS organization **manages** its overall **processes**.
- ➔ The change from a **product-centric** to **data-centric AIS** requires experience and knowledge to design and execute the **data-centric processes** in an efficient way.
- ➔ A **process-oriented** organizational structure is designed around the **end-to-end flow** of different processes. Unlike the **strictly functional structure**, a process-oriented structure considers **not only** the **activities performed** by **AIS personnel**, but also how those different **activities interact** with **one another**.
- ➔ A process approach **does not imply** that the AIS provider **cannot perform other ANS tasks** related to the available competencies. In such cases, the **respective process owners** should **be identified** and **coordinate** with the **AIS management**.

Process-oriented organizational structure

12

Doc 8126 - 3.2.2 Organizational structure

Process-oriented organization



Doc 8126 - 3.2.3 Resources

- ➔ AIS functions can be classified into **two categories**: **operational** functions and **support** functions. Operational functions are **directly** related to the **production** of aeronautical information **products** and the delivery of associated **services**.
- ➔ All other functions, which are not directly related to operations, are support functions, like **quality management**, **compliance management**, **financial** and **human resources management**, **customer service** and **change management**. Such functions are required for the successful performance of an AIS organization.
- ➔ To determining the **resources required** for an AIS provider, it should be **clarified** whether their **functions** are **performed** in an **integrated organization** within the ANSP, or as an autonomous organization, with **AIS provider detached** from the ANSP. This identifies whether **support functions** are **shared** or whether **autonomous support functions** are needed.

Doc 8126 - 3.2.3 Resources

➔ Determining the required AIS resources depends on:

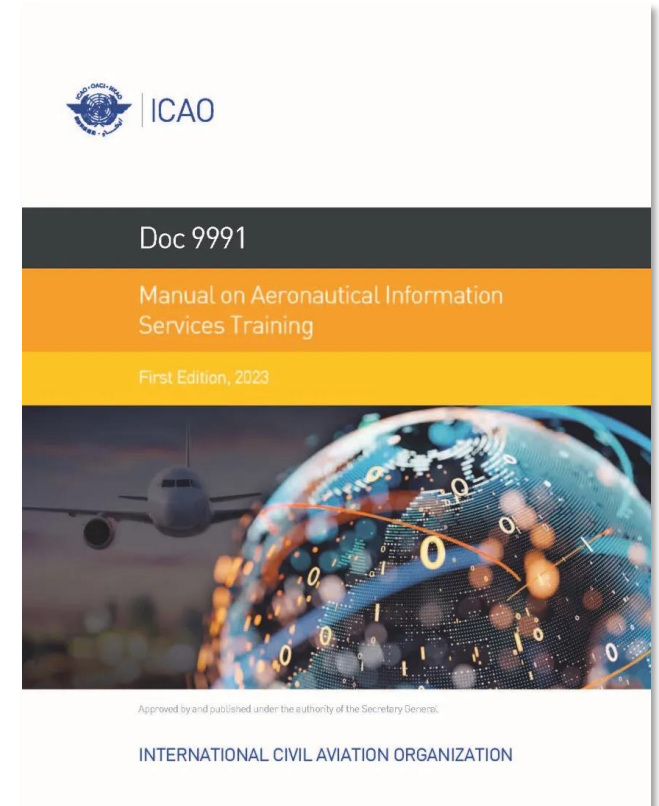
- a) **Processes** and **level of automation** applied for providing the aeronautical information **products** and **services**;
- b) Number of **tasks** related to **processes** that are performed during **business hours**, and those requiring **24/7 availability**;
- c) **Peak production** requirements to comply with **AIRAC** for aeronautical information **products** or **timeliness requirements** (NOTAMs);
- d) availability of personnel (personnel on leave, annual training, retirement); and
- e) contingency considerations.

Doc 8126 - 3.4.1 Personnel requirements

- ➔ AIS provider must ensure that **job descriptions, training programs, training plans and training records** are **developed, maintained and continuously improved** based on the ICAO competency framework.
- ➔ The PANS — Training (**PANS-TRG, Doc 9868**) contains the **principles and procedures** for the **design and implementation** of a competency-based training and assessment (**CBTA**) methodology.
- ➔ The ICAO **competency framework** identifies the **competencies** required for a **specific aviation discipline** with the associated **description and observable behaviors** for performing the professional tasks.

Doc 9991 - 1.6 Phases of AIS training

➔ AIS training is described in the *Manual on Aeronautical Information Services Training* as a sequence of phases, namely **initial, functional, specialized** and **refresher training**.





Thank You!