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INTERNATIONAL CIVIL AVIATION ORGANIZATION

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AIM RBIS Project assistance
ICAO Requirements for QMS

QMS Go-team



ICAO Requirements for Quality Management System in AIM

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Outline

01

State Responsibility

02

AIS Responsibility

03

Aeronautical Information
Management

04

Quality management system



Annex 15 - Chapter 2

(6th Edition, July 2018)

The **responsibilities** of the **State** regarding the **provision** of aeronautical information **service** is stated through standards under Section 2.1 “**State responsibilities**”

State Responsibility for providing AIS

5

→ **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 **SARPs** ... are **adequately met**.

→ **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)**.

State Responsibility for providing AIS

6

- ➔ **Standard 2.1.3**: The State concerned shall remain **responsible** for the aeronautical **data** and aeronautical **information provided** in accordance with **2.1.2...**
- ➔ **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**.



Annex 15 - Chapter 2 (6th Edition, July 2018)

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 suitable **formats**.



Annex 15 - Chapter 3

Section 3.1 Information management requirements

The information management **resources** and **processes** established by an AIS shall be **adequate** to ensure the **timely collection, processing, storing, integration, exchange** and **delivery** of **quality-assured** aeronautical **data** and aeronautical **information** within the ATM system.

- *Section 3.2 Data quality specifications*
- Provisions on the specifications of aeronautical data quality are contained in section 3.2.
- The specifications are detailed in the Appendix 1 to PANS-AIM.
- *Section 3.3 Data verification and validation*
- *Data error detection*



Quality management system

References



Annex 15 - Section 3.6

- **Standard 3.6.1** Quality management systems (QMS) shall be **implemented** and **maintained** encompassing **all functions** of an **AIS**,... The **execution** of such QMS shall be made **demonstrable** for each function stage.
- **Recommendation 3.6.2** *Quality management should be **applicable** to the **whole** aeronautical **data chain** from data **origination** to **distribution** to the next intended user, taking into consideration the **intended use** of data.*
- **Recommendation 3.6.3** *The QMS established in accordance with 3.6.1 should **follow** the **ISO 9000 series** of **quality assurance standards** and be **certified** by an accredited certification body.*

Annex 15 - Section 3.6

- ➔ **Standard 3.6.4** ...the **competencies** and the **associated knowledge, skills and abilities** required for each function shall be **identified**, and **personnel** assigned to perform those functions shall be **appropriately trained**...
...**Processes** shall be in place to ensure that **personnel possess** the **competencies required** to perform specific assigned functions. Appropriate **records** shall be **maintained** so that the **qualifications** of personnel can be **confirmed**....
- ➔ **Standard 3.6.5** Each QMS shall include the necessary **policies, processes and procedures**, including those for the use of metadata, to ensure and verify that aeronautical data is **traceable** throughout the aeronautical information **data chain** ...to allow any **data anomalies** or **errors** detected in use to be **identified by root cause, corrected and communicated** to affected users.

Annex 15 - Section 3.6

- **Standard 3.6.6** The established QMS shall provide users with the necessary **assurance** and **confidence** that distributed aeronautical data and aeronautical information **satisfy** the aeronautical data **quality requirements**.
- **Standard 3.6.7** All necessary **measures** shall be taken to **monitor compliance** with the QMS in place.
- **Standard 3.6.8 Demonstration of compliance** of the QMS applied shall be by **audit**. If **nonconformity** is identified, initiating **action** to **correct** its **cause** shall be determined and taken **without undue delay**. All **audit observations** and **remedial actions** shall be **evidenced** and properly **documented**.

PANS-AIM (Doc 10066) - Section 3.1

→ **3.1.1** The **general requirements** for a QMS shall be to:

- a) develop a **quality manual** that includes the scope of a QMS as applied to AIM processes;
- b) identify the **processes** needed for the QMS;
- c) determine the **sequence** and **interaction** of these **processes**;
- d) determine **criteria** and **methods** required to ensure the **effective operation** and **control** of these processes;
- e) ensure the **availability** of **information** necessary to **support** the **operation** and **monitoring** of these processes;
- f) **measure**, **monitor** and **analyze** these processes, and **implement action** necessary to achieve **planned results** and continual improvement; and
- g) maintain appropriate **records** that are necessary to provide **confidence** of **conformity** of the processes and resulting product.

3.1.2 In the framework of the QMS, a **user feedback system** shall be defined and implemented.



Thank You!